



KATHLEEN BABINEAUX BLANCO
GOVERNOR
MIKE D. McDANIEL, Ph.D.
SECRETARY

Certified Mail No.

Agency Interest No. 1136
Activity No.: PER20020002

Mr. Glenn N. Bucholtz
Shell Chemical LP
Post Office Box 500
Geismar, Louisiana 70734

RE: Part 70 operating permit renewal, Geismar Plant – PDO-1 Unit, Shell Chemical LP,
Geismar, Ascension Parish, Louisiana

Dear Mr. Bucholtz:

This is to inform you that the permit renewal for the above referenced facility has been approved under LAC 33:III.501. The permit is both a state preconstruction and Part 70 operating permit. The submittal was approved on the basis of the emissions reported and the approval in no way guarantees the design scheme presented will be capable of controlling the emissions as to the types and quantities stated. A new application must be submitted if the reported emissions are exceeded after operations begin. The synopsis, data sheets and conditions are attached herewith.

It will be considered a violation of the permit if all proposed control measures and/or equipment are not installed and properly operated and maintained as specified in the application.

Operation of this facility is hereby authorized under the terms and conditions of this permit. This authorization shall expire at midnight on the _____ of _____, 2012, unless a timely and complete renewal application has been submitted six months prior to expiration. Terms and conditions of this permit shall remain in effect until such time as the permitting authority takes final action on the application for permit renewal. The permit number and Agency Interest number cited above should be referenced in future correspondence regarding this facility.

Done this _____ day of _____, 2007.

Permit No.: 2489-V1

Sincerely,

Chuck Carr Brown, Ph.D.
Assistant Secretary

CCB/DCN
cc: EPA Region 6

ENVIRONMENTAL SERVICES
PO BOX 4313, BATON ROUGE, LA 70821-4313
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**AIR PERMIT BRIEFING SHEET
OFFICE OF ENVIRONMENTAL SERVICES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

GEISMAR PLANT – PDO-1 UNIT

AGENCY INTEREST NO. 1136

SHELL CHEMICAL LP

GEISMAR, ASCENSION PARISH, LOUISIANA

I. Background

Shell Chemical LP owns and operates the PDO-1 Unit at its Geismar Plant, near Geismar, Ascension Parish, under Permit 2489-V0, dated November 3, 1997.

II. Origin

A permit application and Emission Inventory Questionnaire dated May 2, 2002 as well as additional information dated April 27 and June 5, 2007 were submitted requesting a Part 70 operating permit renewal.

III. Description

Ethylene oxide reacts with carbon monoxide and hydrogen to form 3-hydroxypropionaldehyde which is the hydrogenated to produce 1,3-propanediol (PDO). Various co-products are also produced and recovered during the purification process. Wastewater is sent to the biotreater for organic removal.

Shell Chemical LP requested a Part 70 operating permit renewal to include the PDO-1 Unit and part of the Common Facilities Unit (COMFAC). The PTT Unit which has never been constructed and the PTK Unit which was shutdown in 2000, were removed from the permit. Emissions from the facility were recalculated based on updated emissions factors and actual operating conditions of the unit. Permitted emissions in tons per year are as follows:

Pollutant	Before	After	Change
PM ₁₀	12.75	14.22	+ 1.47
SO ₂	1.12	0.95	- 0.17
NO _x	94.42	19.66	- 74.76
CO	134.30	89.90	- 44.40
VOC	103.96	42.78	- 61.18
Toxic Air Pollutants (TAP)			
1,3-Butadiene	-	0.03	+ 0.03
Acetaldehyde	-	2.62	+ 2.62
Acrolein	4.36	1.39	- 2.97
Benzene	-	0.03	+ 0.03
Ethylene glycol	-	0.08	+ 0.08
Ethylene oxide	0.68	1.25	+ 0.57
Formaldehyde	-	0.03	+ 0.03

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Pollutant	Before	After	Change
n-Hexane	-	0.05	+ 0.05
Methanol	29.92	0.26	- 29.66
Methyl ethyl ketone	-	0.04	+ 0.04
Methyl tert-butyl ether	18.19	15.23	- 2.96
Naphthalene	-	0.07	+ 0.07
n-Butanol	-	0.01	+ 0.01
PAH	-	0.02	+ 0.02
Propionaldehyde	-	2.33	+ 2.33
Sulfuric acid	-	0.01	+ 0.01
Toluene	-	8.40	+ 8.40
Xylenes	-	0.04	+ 0.04
Total TAPs	53.15	31.89	- 21.26

IV. Type of Review

This application was reviewed for compliance with the Louisiana Part 70 operating permit program, Louisiana Air Quality Regulations, NESHAP, and NSPS. NO_x and CO emissions from four emission points increased more than the limits of Permit PSD-LA-611. These emissions were reviewed under the PSD regulations and documented in Permit PSD-LA-611(M1). The facility is a part of a major source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51.

V. Credible Evidence

Notwithstanding any other provisions of any applicable rule or regulation or requirement of this permit that state specific methods that may be used to assess compliance with applicable requirements, pursuant to 40 CFR Part 70 and EPA's Credible Evidence Rule, 62 Fed. Reg. 8314 (Feb. 24, 1997), any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed shall be considered for purposes of Title V compliance certifications. Furthermore, for purposes of establishing whether or not a person has violated or is in violation of any emissions limitation or standard or permit condition, nothing in this permit shall preclude the use, including the exclusive use, by any person of any such credible evidence or information.

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VI. Public Notice

A notice requesting public comment on the permit was published in *The Advocate*, Baton Rouge, and in the XXX, XXX, on XXX, 2007, and was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List. The permit application, the proposed permit, and the Statement of Basis were submitted to the Ascension Parish Library. The proposed permit and the Statement of Basis were submitted to US EPA Region 6. All comments will be considered prior to a permit decision.

VII. Effects on Ambient Air

Dispersion Model Used: (None)

Pollutant	Time Period	Calculated Maximum Ground Level Concentration ($\mu\text{g}/\text{m}^3$)	Louisiana Ambient Air Standard (NAAQS) ($\mu\text{g}/\text{m}^3$)
NO _x	Annual	3.76	(100)

VIII. General Condition XVII Activities

ID	Description	Emissions (tons/year)			
		PM ₁₀	NO _x	VOC	H ₂ SO ₄
	Filter Changes			0.01	
	Maintenance Activities			0.13	0.02
	Process Sample			0.15	
	Flare Shutdown			<0.01	

IX. Insignificant Activities (LAC 33:III.501.B.5)

ID	Description	Citation
IA-TAU501	Diesel Firewater Tank T-AU501 – 560 gal	A.3
IA-TAU505	COMFAC Diesel Tank T-AU505 – 560 gal	A.3
IA-TAU603	PDO PAD Diesel Tank T-AU603 – 560 gal	A.3
	Laboratory Sampling	A.6
	COMFAC Sodium Hypochlorite Tank T-AU401	B.8
	COMFAC Sodium Bromide Tank T-AU402	B.8
	COMFAC CWT Corrosion Inhibitor Tank T-AU403	B.8
	COMFAC CWT Dispersant Tank T-AU404	B.8

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X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	LAC 33:III Chapter														
		509	2103	2107	2111	2113	2115	2121	2122	2153	54	9	11	13	15	51*
EQT610	06-97 - PDO Rundown Tank, T-PD1905 Fixed															
EQT611	07-97 - PDO Rundown Tank, T-PD1906 Fixed															
EQT612	08-97 - PDO Storage Tank, T-PD1907															
EQT613	09-97 - PDO Effluent Surge Tank, T-PD1912 Fixed															
EQT614	10-97 - PDO HEs Tops Storage Tank, T-PD1913 Fixed															
EQT615	13-97 - PDO PAD Sump, T-PD1802															
EQT616	14A-97 - PDO PAD Transfer Pump Driver, DP-PD1803	1														1
EQT617	16-97 - PDO Catalyst Exhaust Blower Vent, B-PD1101															1
EQT618	18-97 - PDO Unit Loading															1
EQT619	21-97 - Catalyst Recovery System Vent, V-PD1500															1
EQT620	35A-97 - COMFAC Firewater Pump Driver, DP-AU501															1
EQT621	36A-97 - COMFAC Flare, A-AU701															1
EQT622	37-97 - COMFAC PAD Impoundment Tank, T-AU601 Open															1
EQT623	90-97 - COMFAC Wastewater Tank, T-AU604 Fixed															1
EQT624	91-97 - COMFAC Wastewater Tank, T-AU605 Fixed															1
EQT625	92A-97 - COMFAC Emergency Generator Driver, DP-AU505	1														1
EQT626	101-00 - PDO Railcar Loading															1
EQT627	103-00 - 95 wt% Sulfuric Acid Tank, T-PD1911															1
EQT628	104-00 - COMFAC Cooling Water Tower, W-AU401															1
EQT629	12-02 - Cobalt Feed Screw Conveyor Vent															1
EQT630	02-97 - Wet MTBE Storage Tank, T-PD1901															1

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ID No.:	Description	LAC 33:III.										LAC 33:III. Chapter					
		509	2103	2107	2111	2113	2115	2121	2122	2153	5*	9	11	13	15	51*	59
EQT631	03-97 - PDO Rerun Tank, T-PD1916			1													
EQT632	05-97 - Light Ends Storage Tank, T-PD1904			1													
EQT633	17-97 - Light Ends Loading				1												
EQT634	CPD1708 - Vent Scrubber, C-PD1708																
EQT635	PDO TT - PDO Toluene Tank							1									
EQT636	19-97 - PDO Recovered Catalyst Effluent, T-PD1504								1								
EQT637	20-97 - Light Ends Rec. Col. Btms Purge, C-PD1703									3							
EQT638	MON1 - PDO-MON1																
EQT639	MON2 - PDO-MON2																
EQT640	MON3 - PDO-MON3																
EQT641	MON4 - PDO-MON4																
EQT642	MON5 - PDO-MON5																
EQT643	MON6 - PDO-MON6																
EQT644	MON7 - PDO-MON7																
EQT645	MON8 - PDO-MON8																
EQT646	MON9 - PDO-MON9																
EQT647	MON10 - PDO-MON10																
EQT648	MON11 - PDO-MON11																
EQT649	MON12 - PDO-MON12																
EQT650	MON13 - PDO-MON13																
EQT651	MON14 - PDO-MON14																

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X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	LAC 33:III										LAC 33:III Chapter					
		509	2103	2107	2111	2113	2115	2121	2122	2153	5*	9	11	13	15	51*	59
EQT652	MON15 - PDO-MON15																
EQT653	MON16 - PDO-MON16																
EQT654	MON17 - PDO-MON17																
EQT655	MON18 - PDO-MON18																
EQT656	MON19 - PDO-MON19																
EQT657	MON20 - PDO-MON20																
EQT658	MON21 - PDO-MON21																
EQT659	MON22 - PDO-MON22																
EQT729	15-97 - PDO Vacuum System Effluent, T-PD1504									1		3	3				
FUG017	01-97 - PDO Fugitive Emissions										1					1	
UNF001	PDO-1 Unit										1					1	

KEY TO MATRIX

- 1 - The regulations have applicable requirements which apply to this particular emission source.
 - The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.
 - 2 - The regulations have applicable requirements which apply to this particular emission source but the source is currently exempt from these requirements due to meeting specific criteria, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.
 - 3 - The regulations apply to this general type of emission source (i.e. vents, furnaces, and fugitives) but do not apply to this particular emission source.
 Blank – The regulations clearly do not apply to this type of emission source.
- * The regulations indicated above are State Only regulations.
 ▲ All LAC 33:III Chapter 5 citations are federally enforceable including LAC 33:III.501.C.6 citations, except when the requirement found in the "Specific Requirements" report specifically states that the regulation is State Only.

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X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60			40 CFR 61			40 CFR 63			40 CFR 64			40 CFR 68			40 CFR 72		
		A	Bc	Kb	W	NNN	RRR	A	F	M	A	G	H	Q	FFFF	ZZZZ	64	68	72
EQT610	06-97 - PDO Rundown Tank, T-PD1905 Fixed																		
EQT611	07-97 - PDO Rundown Tank, T-PD1906 Fixed																		
EQT612	08-97 - PDO Storage Tank, T-PD1907																		
EQT613	09-97 - PDO Effluent Surge Tank, T-PD1912 Fixed																		
EQT614	10-97 - PDO HEs Tops Storage Tank, T-PD1913 Fixed																		
EQT615	13-97 - PDO PAD Sump, T-PD1802																		
EQT616	14A-97 - PDO PAD Transfer Pump Driver, DP-PD1803																		
EQT617	16-97 - PDO Catalyst Exhaust Blower Vent, B-PD1101																		
EOT618	18-97 - PDO Unit Loading																		
EQT619	21-97 - Catalyst Recovery System Vent, V-PD1500																		
EQT620	35A-97 - COMFAC Firewater Pump Driver, DP-AU501																		
EQT621	36A-97 - COMFAC Flare, A-AU701																		
EQT622	37-97 - COMFAC PAD Impoundment Tank, T-AU601 Open																		
EQT623	90-97 - COMFAC Wastewater Tank, T-AU604 Fixed																		
EQT624	91-97 - COMFAC Wastewater Tank, T-AU605 Fixed																		
EQT625	92A-97 - COMFAC Emergency Generator Driver, DP-AU505																		
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EQT630	02-97 - Wet MTBE Storage Tank, T-PD1901																		

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X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60			40 CFR 61			40 CFR 63			40 CFR 64			40 CFR 68			40 CFR 72		
		A	Dc	Kb	VV	NNN	RRR	A	F	M	A	G	H	Q	FFFF	AAAA	BBBB	CCCC	
EQT631	03-97 - PDO Rerun Tank, T-PD1916				1														
EQT632	05-97 - Light Ends Storage Tank, T-PD1904				1														
EQT633	17-97 - Light Ends Loading												1						
EQT634	CPDI1708 - Vent Scrubber, C-PDI1708				1														
EQT635	PDOTT - PDO Toluene Tank																		
EQT636	19-97 - PDO Recovered Catalyst Effluent, T-PD1504																		
EQT637	20-97 - Light Ends Rec. Col. Btms Purge, C-PD1703																		
EQT638	MON1 - PDO-MON1												1						
EQT639	MON2 - PDO-MON2													1					
EQT640	MON3 - PDO-MON3													1					
EQT641	MON4 - PDO-MON4													3					
EQT642	MON5 - PDO-MONS														1				
EQT643	MON6 - PDO-MON6													1					
EQT644	MON7 - PDO-MON7													1					
EQT645	MON8 - PDO-MON8													1					
EQT646	MON9 - PDO-MON9													1					
EQT647	MON10 - PDO-MON10													1					
EQT648	MON11 - PDO-MON11													1					
EQT649	MON12 - PDO-MON12													1					
EQT650	MON13 - PDO-MON13													1					
EQT651	MON14 - PDO-MON14													1					

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X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60												40 CFR 61												40 CFR 63												40 CFR 64											
		A	Dc	Kb	W	NNN	RRR	A	F	M	A	G	H	Q	FFFF	ZZZZ	64	68	72																														
EQT652	MON15 - PDO-MON15																																																
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- ¹ - The regulations have applicable requirements which apply to this particular emission source.
- The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.
- ² - The regulations have applicable requirements which apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criteria, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.
- ³ - The regulations apply to this general type of emission source (i.e. vents, furnaces, and fugitives) but do not apply to this particular emission source.
Blank - The regulations clearly do not apply to this type of emission source.

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XI. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Status	Citation	Explanation
EQT610, EQT611, EQT612 EQT614	LAC 33:III.2.103 for VOC storage NSPS Subpart Kb for tanks	Does not apply Does not apply	LAC 33:III.2103.A 40 CFR 63.110b(a)	Vapor Pressure < 1.5 psia Vapor pressure < 0.51 psia
EQT613, EQT623, EQT624	LAC 33:III.2.103 for VOC storage NSPS Subpart Kb for tanks	Does not apply Does not apply	LAC 33:III.2103.A 40 CFR 63.110b(a)	Vapor Pressure < 1.5 psia Vapor pressure < 0.51 psia
	LAC 33:III.2153 – Industrial Wastewater	Does not apply	LAC 33:III.2153	Does not receive wastewater stream with VOC concentration =>1000 ppmw
EQT615, EQT636, EQT637	LAC 33:III.2153 – Industrial Wastewater	Does not apply	LAC 33:III.2153	Does not receive wastewater stream with VOC concentration =>1000 ppmw
EQT616, EQT620, EQT621 EQT625	LAC 33:III.1503. Standards for SO ₂ LAC 33:III.1511 CEM for SO ₂	Exempt Exempt	LAC 33:III.1503.C LAC 33:III.1511.A	SO ₂ emissions < 250 tons/year SO ₂ emissions < 100 tons/year
EQT618, EQT626 EQT619	LAC 33:III.2.107 – VOC Loading LAC 33:III.2115 – Waste Gas	Does not apply Exempt	LAC 33:III.2107.A.1 LAC 33:III.2115.H.1.c	Vapor Pressure < 1.5 psia VOC emissions < 100 lbs/24 hours
EQT622	LAC 33:III.2153 – Industrial Wastewater	Does not apply	LAC 33:III.2153	Does not receive wastewater stream with VOC concentration =>1000 ppmw
EQT627, EQT630 EQT628	LAC 33:III.5109 MACT Requirements 40 CFR 63 Subpart Q	Does not apply Does not apply	LAC 33:III.5109.A 40 CFR 63.400	MACT is not required for Class III TAPs No chromium based water treatment chemicals are used
EQT641 EQT659	40 CFR 63 Subpart FFFF - MON 40 CFR 63 Subpart FFFF - MON	Does not apply Does not apply		The lab is not a part of a MCPU Maintenance wastewater
FUG017	LAC 33:III.2121 LAC 33:III.2122 NSPS Subpart VV	Does not apply Does not apply Does not apply	LAC 33:III.2121 LAC 33:III.2122 40 CFR 60.480	The unit is not list as an affected facility The unit is not list as an affected facility The unit is not list as an affected facility

The above table provides explanation for both the exemption status or non-applicability of a source cited by 2 or 3 in the matrix presented in Section X of this permit

40 CFR PART 70 GENERAL CONDITIONS

- A. The term of this permit shall be five (5) years from date of issuance. An application for a renewal of this 40 CFR Part 70 permit shall be submitted to the administrative authority no later than six months prior to the permit expiration date. Should a complete permit application not be submitted six months prior to the permit expiration date, a facility's right to operate is terminated pursuant to 40 CFR Section 70.7(c)(ii). Operation may continue under the conditions of this permit during the period of the review of the application for renewal. [LAC 33:III.507.E.1, E.3, E.4, reference 40 CFR 70.6(a)(2)]
- B. The conditions of this permit are severable; and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. [Reference 40 CFR 70.6(a)(5)]
- C. Permittee shall comply with all conditions of the 40 CFR Part 70 permit. Any permit noncompliance constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [LAC 33:III.507.B.2, reference 40 CFR 70.6(a)(6)(i) & (iii)]
- D. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [Reference 40 CFR 70.6(a)(6)(ii)]
- E. This permit does not convey any property rights of any sort, or an exclusive privilege. [Reference 40 CFR 70.6(a)(6)(iv)]
- F. The permittee shall furnish to the permitting authority, within a reasonable time, any information that the permitting authority may request in writing to determine whether cause exists for modifying, revoking, and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the permitting authority copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality. A claim of confidentiality does not relieve the permittee of the requirement to provide the information. [LAC 33:III.507.B.2, 517.F, reference 40 CFR 70.6(a)(6)(v)]
- G. Permittee shall pay fees in accordance with LAC 33:III.Chapter 2 and 40 CFR Section 70.6(a)(7). [LAC 33:III.501.C.2, reference 40 CFR 70.6(a)(7)]
- H. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the permitting authority or authorized representative to perform the following:
 1. enter upon the permittee's premises where a 40 CFR Part 70 source is located or emission-related activity is conducted, or where records must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(i)];
 2. have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(ii)];

40 CFR PART 70 GENERAL CONDITIONS

3. inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iii)]; and
4. as authorized by the Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iv)]

I. All required monitoring data and supporting information shall be kept available for inspection at the facility or alternate location approved by the agency for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Supporting information includes calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and all reports required by the permit. [Reference 40 CFR 70.6(a)(3)(ii)(B)]

J. Records of required monitoring shall include the following:

1. the date, place as defined in the permit, and time of sampling or measurements;
 2. the date(s) analyses were performed;
 3. the company or entity that performed the analyses;
 4. the analytical techniques or methods used;
 5. the results of such analyses; and
 6. the operating conditions as existing at the time of sampling or measurement.
- [Reference 40 CFR 70.6(a)(3)(ii)(A)]

K. Permittee shall submit at least semiannually, reports of any required monitoring, clearly identifying all instances of deviations from permitted monitoring requirements, certified by a responsible company official. For previously reported deviations, in lieu of attaching the individual deviation reports, the semiannual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The semiannual reports shall be submitted to the Office of Environmental Compliance, Enforcement Division by March 31 for the preceding period encompassing July through December and September 30 for the preceding period encompassing January through June. Any quarterly deviation report required to be submitted by March 31 or September 30 in accordance with Part 70 General Condition R may be consolidated with the semi-annual reports required by this general condition as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. [LAC 33:III.507.H, reference 40 CFR 70.6(a)(3)(iii)(A)]

L. The permittee shall submit at least semiannual reports on the status of compliance pursuant to 40 CFR Section 70.5 (c) (8) and a progress report on any applicable schedule of compliance pursuant to 40 CFR Section 70.6 (c) (4). [LAC 33:III.507.H.1, reference 40 CFR 70.6(c)(4)]

M. Compliance certifications per LAC 33:III.507.H.5 shall be submitted to the Administrator as well as the permitting authority. For previously reported compliance deviations, in lieu of attaching the individual deviation reports, the annual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The compliance certifications shall be submitted to the Office of

40 CFR PART 70 GENERAL CONDITIONS

Environmental Compliance, Enforcement Division by March 31 for the preceding calendar year. [LAC 33:III.507.H.5, reference 40 CFR 70.6(c)(5)(iv)]

- N. If the permittee seeks to reserve a claim of an affirmative defense as provided in LAC 33:III.507.J.2, the permittee shall, in addition to any emergency or upset provisions in any applicable regulation, notify the permitting authority within 2 working days of the time when emission limitations were exceeded due to the occurrence of an upset. In the event of an upset, as defined under LAC 33:III.507.J, which results in excess emissions, the permittee shall demonstrate through properly signed, contemporaneous operating logs, or other relevant evidence that: 1) an emergency occurred and the cause was identified; 2) the permitted facility was being operated properly at the time; and 3) during the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standard or requirement of the permit. [LAC 33:III.507.J.2, reference 40 CFR 70.6(g)(3)(iv) & (i-iii)]
- O. Permittee shall maintain emissions at a level less than or equal to that provided for under the allowances that the 40 CFR Part 70 source lawfully holds under Title IV of the Clean Air Act or the regulations promulgated thereunder. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit revision under any other applicable requirement. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement. Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Clean Air Act. [Reference 40 CFR 70.6(a)(4)]
- P. Any permit issued pursuant to 40 CFR Part 70 may be subject to reopening prior to the expiration of the permit for any of the conditions specified in 40 CFR Section 70.7(f) or LAC 33:III.529. [LAC 33:III.529.A-B, reference 40 CFR 70.7(f)]
- Q. Permittee may request an administrative amendment to the permit to incorporate test results from compliance testing if the following criteria are met:
 1. the changes are a result of tests performed upon start-up of newly constructed, installed, or modified equipment or operations;
 2. increases in permitted emissions will not exceed five tons per year for any regulated pollutant;
 3. increases in permitted emissions of Louisiana toxic air pollutants or of federal hazardous air pollutants would not constitute a modification under LAC 33:III. Chapter 51 or under Section 112 (g) of the Clean Air Act;
 4. changes in emissions would not require new source review for prevention of significant deterioration or nonattainment and would not trigger the applicability of any federally applicable requirement;
 5. changes in emissions would not qualify as a significant modification; and
 6. the request is submitted no later than 12 months after commencing operation. [LAC 33:III.523.A, reference 40 CFR 70.7(d)]

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- R. Permittee shall submit prompt reports of all permit deviations as specified below to the Office of Environmental Compliance, Enforcement Division. All such reports shall be certified by a responsible official in accordance with 40 CFR 70.5(d).
1. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
 2. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.
 3. A written report shall be submitted quarterly to address all permit deviations not included in paragraphs 1 or 2 above. Unless required by an applicable reporting requirement, a written report is not required during periods in which there is no deviation. The quarterly deviation reports submitted on March 31 and September 30 may be consolidated with the semi-annual reports required by Part 70 General Condition K as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. For previously reported permit deviations, in lieu of attaching the individual deviation reports, the quarterly report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any permit deviations occurring during the corresponding specified calendar quarter:
 - a. Report by June 30 to cover January through March
 - b. Report by September 30 to cover April through June
 - c. Report by December 31 to cover July through September
 - d. Report by March 31 to cover October through December
 4. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided such reports are certified in accordance with 40 CFR 70.5(d) and contain all information relevant to the permit deviation. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107. [Reference 40 CFR 70.6(a)(3)(iii)(B)]
- S. Permittee shall continue to comply with applicable requirements on a timely basis, and will meet on a timely basis applicable requirements that become effective during the permit term. [Reference 40 CFR 70.5(c)(8)(ii)]
- T. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156;

40 CFR PART 70 GENERAL CONDITIONS

- 2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158;
 - 3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161;
 - 4. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to 40 CFR 82.166. ("MVAC-like appliance" as defined at 40 CFR 82.152);
 - 5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR 82.156; and
 - 6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166. [Reference 40 CFR 82, Subpart F]
- U. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.
- The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant. [Reference 40 CFR 82, Subpart B]
- V. Data availability for continuous monitoring or monitoring to collect data at specific intervals: Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the emissions unit is operating. For purposes of reporting monitoring deviations under Part 70 General Conditions K and R, and unless otherwise provided for in the Specific Requirements (or Table 3) of this permit, the minimum degree of data availability shall be at least 90% (based on a monthly average) of the operating time of the emissions unit or activity being monitored. This condition does not apply to Leak Detection and Repair (LDAR) programs for fugitive emissions (e.g., 40 CFR 60 Subpart VV, 40 CFR 63 Subpart H).

LOUISIANA AIR EMISSION PERMIT GENERAL CONDITIONS

- I. This permit is issued on the basis of the emissions reported in the application for approval of emissions and in no way guarantees that the design scheme presented will be capable of controlling the emissions to the type and quantities stated. Failure to install, properly operate and/or maintain all proposed control measures and/or equipment as specified in the application and supplemental information shall be considered a violation of the permit and LAC 33:III.501. If the emissions are determined to be greater than those allowed by the permit (e.g. during the shakedown period for new or modified equipment) or if proposed control measures and/or equipment are not installed or do not perform according to design efficiency, an application to modify the permit must be submitted. All terms and conditions of this permit shall remain in effect unless and until revised by the permitting authority.
- II. The permittee is subject to all applicable provisions of the Louisiana Air Quality Regulations. Violation of the terms and conditions of the permit constitutes a violation of these regulations.
- III. The Emission Rates for Criteria Pollutants, Emission Rates for TAP/HAP & Other Pollutants, and Specific Requirements sections or, where included, Emission Inventory Questionnaire sheets establish the emission limitations and are a part of the permit. Any operating limitations are noted in the Specific Requirements or, where included, Tables 2 and 3 of the permit. The synopsis is based on the application and Emission Inventory Questionnaire dated May 2, 2002 as well as additional information dated April 27 and June 5, 2007.
- IV. This permit shall become invalid, for the sources not constructed, if:
 - A. Construction is not commenced, or binding agreements or contractual obligations to undertake a program of construction of the project are not entered into, within two (2) years (18 months for PSD permits) after issuance of this permit, or;
 - B. If construction is discontinued for a period of two (2) years (18 months for PSD permits) or more.The administrative authority may extend this time period upon a satisfactory showing that an extension is justified.
This provision does not apply to the time period between construction of the approved phases of a phased construction project. However, each phase must commence construction within two (2) years (18 months for PSD permits) of its projected and approved commencement date.
- V. The permittee shall submit semiannual reports of progress outlining the status of construction, noting any design changes, modifications or alterations in the construction schedule which have or may have an effect on the emission rates or ambient air quality levels. These reports shall continue to be submitted until such time as construction is certified as being complete. Furthermore, for any significant change in the design, prior approval shall be obtained from the Office of Environmental Services, Air Permits Division.
- VI. The permittee shall notify the Department of Environmental Quality, Office of Environmental Services, Air Permits Division within ten (10) calendar days from the date that construction is certified as complete and the estimated date of start-up of operation. The appropriate Regional Office shall also be so notified within the same time frame.

**LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS**

- VII. Any emissions testing performed for purposes of demonstrating compliance with the limitations set forth in paragraph III shall be conducted in accordance with the methods described in the Specific Conditions and, where included, Tables 1, 2, 3, 4, and 5 of this permit. Any deviation from or modification of the methods used for testing shall have prior approval from the Office of Environmental Assessment, Air Quality Assessment Division.
- VIII. The emission testing described in paragraph VII above, or established in the specific conditions of this permit, shall be conducted within sixty (60) days after achieving normal production rate or after the end of the shakedown period, but in no event later than 180 days after initial start-up (or restart-up after modification). The Office of Environmental Assessment, Air Quality Assessment Division shall be notified at least (30) days prior to testing and shall be given the opportunity to conduct a pretest meeting and observe the emission testing. The test results shall be submitted to the Air Quality Assessment Division within sixty (60) days after the complete testing. As required by LAC 33:III.913, the permittee shall provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits.
- IX. The permittee shall, within 180 days after start-up and shakedown of each project or unit, report to the Office of Environmental Compliance, Enforcement Division any significant difference in operating emission rates as compared to those limitations specified in paragraph III. This report shall also include, but not be limited to, malfunctions and upsets. A permit modification shall be submitted, if necessary, as required in Condition I.
- X. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of at least five (5) years.
- XI. If for any reason the permittee does not comply with, or will not be able to comply with, the emission limitations specified in this permit, the permittee shall provide the Office of Environmental Compliance, Enforcement Division with a written report as specified below.
- A. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
 - B. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.
 - C. A written report shall be submitted quarterly to address all emission limitation exceedances not included in paragraphs A or B above. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any emission limitation exceedances occurring during the corresponding specified calendar quarter:
 1. Report by June 30 to cover January through March
 2. Report by September 30 to cover April through June
 3. Report by December 31 to cover July through September
 4. Report by March 31 to cover October through December

LOUISIANA AIR EMISSION PERMIT GENERAL CONDITIONS

- D. Each report submitted in accordance with this condition shall contain the following information:
1. Description of noncomplying emission(s);
 2. Cause of noncompliance;
 3. Anticipated time the noncompliance is expected to continue, or if corrected, the duration of the period of noncompliance;
 4. Steps taken by the permittee to reduce and eliminate the noncomplying emissions; and
 5. Steps taken by the permittee to prevent recurrences of the noncomplying emissions.
- E. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided all information specified above is included. For Part 70 sources, reports submitted in accordance with Part 70 General Condition R shall serve to meet the requirements of this condition provided all specified information is included. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107.
- XII. Permittee shall allow the authorized officers and employees of the Department of Environmental Quality, at all reasonable times and upon presentation of identification, to:
- A. Enter upon the permittee's premises where regulated facilities are located, regulated activities are conducted or where records required under this permit are kept;
 - B. Have access to and copy any records that are required to be kept under the terms and conditions of this permit, the Louisiana Air Quality Regulations, or the Act;
 - C. Inspect any facilities, equipment (including monitoring methods and an operation and maintenance inspection), or operations regulated under this permit; and
 - D. Sample or monitor, for the purpose of assuring compliance with this permit or as otherwise authorized by the Act or regulations adopted thereunder, any substances or parameters at any location.
- XIII. If samples are taken under Section XII.D. above, the officer or employee obtaining such samples shall give the owner, operator or agent in charge a receipt describing the sample obtained. If requested prior to leaving the premises, a portion of each sample equal in volume or weight to the portion retained shall be given to the owner, operator or agent in charge. If an analysis is made of such samples, a copy of the analysis shall be furnished promptly to the owner, operator or agency in charge.
- XIV. The permittee shall allow authorized officers and employees of the Department of Environmental Quality, upon presentation of identification, to enter upon the permittee's premises to investigate potential or alleged violations of the Act or the rules and regulations adopted thereunder. In such investigations, the permittee shall be notified at the time entrance is requested of the nature of the suspected violation. Inspections under this subsection shall be

**LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS**

limited to the aspects of alleged violations. However, this shall not in any way preclude prosecution of all violations found.

XV. The permittee shall comply with the reporting requirements specified under LAC 33:III.919 as well as notification requirements specified under LAC 33:III.927.

XVI. In the event of any change in ownership of the source described in this permit, the permittee and the succeeding owner shall notify the Office of Environmental Services, Air Permits Division, within ninety (90) days after the event, to amend this permit.

XVII. Very small emissions to the air resulting from routine operations, that are predictable, expected, periodic, and quantifiable and that are submitted by the permitted facility and approved by the Air Permits Division are considered authorized discharges. Approved activities are noted in the General Condition XVII Activities List of this permit. To be approved as an authorized discharge, these very small releases must:

1. Generally be less than 5 TPY
2. Be less than the minimum emission rate (MER)
3. Be scheduled daily, weekly, monthly, etc., or
4. Be necessary prior to plant startup or after shutdown [line or compressor pressuring/depressuring for example]

These releases are not included in the permit totals because they are small and will have an insignificant impact on air quality. This general condition does not authorize the maintenance of a nuisance, or a danger to public health and safety. The permitted facility must comply with all applicable requirements, including release reporting under LAC 33:I.3901.

XVIII. Provisions of this permit may be appealed in writing pursuant to La. R.S. 30:2024(A) within 30 days from receipt of the permit. Only those provisions specifically appealed will be suspended by a request for hearing, unless the secretary or the assistant secretary elects to suspend other provisions as well. Construction cannot proceed except as specifically approved by the secretary or assistant secretary. A request for hearing must be sent to the following:

Attention: Office of the Secretary, Legal Services Division
La. Dept. of Environmental Quality
Post Office Box 4302
Baton Rouge, Louisiana 70821-4302

XIX. Certain Part 70 general conditions may duplicate or conflict with state general conditions. To the extent that any Part 70 conditions conflict with state general conditions, then the Part 70 general conditions control. To the extent that any Part 70 general conditions duplicate any state general conditions, then such state and Part 70 provisions will be enforced as if there is only one condition rather than two conditions.

General Information

AI ID: 1136 Shell Chemical Co - Geismar Plant
 Activity Number: PER20020002
 Permit Number: 2489-Y1
 Air - Title V Regular Permit Renewal

Also Known As:	ID	Name	User Group	Start Date
	LA05258	ADVF #	Asbestos	04-14-2003
0180-00010		Shell Chemical Co - Geismar Plant	CDS Number	08-22-2002
0180-00110		Shell Chemical Co - Geismar Plant	Emission Inventory	02-25-2004
13-1299890		Federal Tax ID	Federal Tax ID	11-21-1999
LAD003913183		Shell Chemical Co - Geismar Plant	Hazardous Waste Notification	09-02-1983
LAD003913183		Shell Chemical Co - Geismar Plant	Inactive & Abandoned Sites	06-09-1981
LA00095754		LPDES #	LPDES Permit #	06-25-2003
WP1347		LWDPS #	LWDPS Permit #	06-25-2003
		Priority 1 Emergency Site	Priority 1 Emergency Site	07-18-2006
		Radioactive Material License	Radiation License Number	05-26-1987
LA-2132-LD1		X-Ray Registration Number	Radiation X-ray Registration Number	11-21-1999
2132		Site ID #	Solid Waste Facility No.	11-21-1999
G-005-1740		Shell Chemical Co - Geismar Works	TEMPO Merge	01-19-2001
17631		Shell Chemical LP - Geismar	TEMPO Merge	08-05-2001
34601		Shell Chemical Co	TEMPO Merge	08-05-2001
38774		Shell Chemical Co	TEMPO Merge	03-08-2001
47981		Shell Chemical Co	TEMPO Merge	08-05-2001
67594		Toxic Emissions Data Inventory #	Toxic Emissions Data Inventory #	01-01-1991
0180-00110		TRI #	Toxic Release Inventory	07-19-2004
70737SHLLCRIVER		UST Facility ID #	Underground Storage Tanks	10-11-2002
03-008346				
			Main Phone:	2252016222
Physical Location:				
		7594 Hwy 75		
		Geismar, LA 70734		
Mailing Address:		PO Box 500		
		Geismar, LA 707340500		
Location of Front Gate:		30° 11' 6" 5 hundredths latitude, 90° 59' 15" 40 hundredths longitude, Coordinate Method: GPS Code (Psuedo Range) Differential, Coordinate Datum: NAD83		
Related People:		Name	Phone (Type)	Relationship
		Anne Adrian	2252016324 (WP)	Water Permit Contact For
		Anne Adrian	2252016030 (WF)	Water Permit Contact For
		Anne Adrian	2252016324 (WP)	Water Billing Party for
		Anne Adrian	2252016030 (WF)	Water Billing Party for
		Anne Adrian	2252016324 (WP)	Asbestos Contact for
		Anne Adrian	2252016030 (WF)	Hazardous Waste Permit Contact For

General Information

AI ID: 1136 Shell Chemical Co - Geismar Plant
 Activity Number: PER20020002
 Permit Number: 2489-V1
 Air - Title V Regular Permit Renewal

Related People:	Name	Mailing Address	Phone (Type)	Relationship
	Anne Adrian	7594 Hwy 75 Geismar, LA 70737	2252016324 (WP)	Hazardous Waste Permit Contact For
	Anne Adrian	7594 Hwy 75 Geismar, LA 70737	2252016030 (WF)	Asbestos Contact for
	Lorraine Anderson	PO Box 500 Geismar, LA 707340500	2252016586 (WP)	Emission Inventory Contact for
	Lorraine Anderson	PO Box 500 Geismar, LA 707340500	2252016207 (WP)	Emission Inventory Contact for
	Gerald Brouillette	PO Box 500 Geismar, LA 707340500	2252016207 (WP)	Accident Prevention Billing Party for
	Gerald Brouillette	PO Box 500 Geismar, LA 707340500	GERALD.BROUILLE	Air Permit Contact For
	Gerald Brouillette	PO Box 500 Geismar, LA 707340500	2252016030 (WF)	Air Permit Contact For
	Gerald Brouillette	PO Box 500 Geismar, LA 707340500	2252016207 (WP)	Air Permit Contact For
	Gerald Brouillette	PO Box 500 Geismar, LA 707340500	GERALD.BROUILLE	TEDI Contact for
	Gerald Brouillette	PO Box 500 Geismar, LA 707340500	2252016030 (WF)	TEDI Contact for
	Gerald Brouillette	PO Box 500 Geismar, LA 707340500	2252016207 (WP)	TEDI Contact for
	Gerald Brouillette	PO Box 500 Geismar, LA 707340500	GERALD.BROUILLE	Accident Prevention Billing Party for
	Gerald Brouillette	PO Box 500 Geismar, LA 707340500	2252016030 (WF)	Accident Prevention Billing Party for
	Gerald Brouillette	PO Box 500 Geismar, LA 707340500	2252016030 (WF)	Responsible Official for
	Glenn Bucholtz	PO Box 500 Geismar, LA 707340500	2252016456 (WP)	Radiation Contact For
	Robert E. Evans	PO Box 500 Geismar, LA 707340500	2252016456 (WP)	Radiation Safety Officer for
	Robert E. Evans	PO Box 500 Geismar, LA 707340500	2252016782 (WP)	Accident Prevention Contact for
	Kathleen M. Garey	PO Box 500 Geismar, LA 707340500	2252016482 (WF)	Accident Prevention Contact for
Related Organizations:	Name	Address	Phone (Type)	Relationship
	Shell Chemical LP	PO Box 500 Geismar, LA 707340500	2252016247 (WP)	Owns
	Shell Chemical LP	PO Box 500 Geismar, LA 707340500	2252016247 (WP)	Operates
	Shell Chemical LP	PO Box 500 Geismar, LA 707340500	2252016247 (WP)	Air Billing Party for
	Shell Chemical LP	PO Box 500 Geismar, LA 707340500	2252016247 (WP)	Radiation Registration Billing Party for
	Shell Chemical LP	PO Box 500 Geismar, LA 707340500	2252016247 (WP)	Radiation License Billing Party for
	Shell Chemical LP	PO Box 500 Geismar, LA 707340500	2252016247 (WP)	UST Billing Party for

Note: This report entitled "General Information" contains a summary of facility-level information contained in LDEQ's TEMPO database for this facility and is not considered a part of the permit. Please review the information contained in this document for accuracy and completeness. If any changes are required or if you have questions regarding this document, you may contact Mr. David Ferrand, Environmental Assistance Division, at (225) 219-3247 or email your changes to facupdate@la.gov.

INVENTORIES

All ID: 1136 - Shell Chemical Co - Geismar Plant
 Activity Number: PER20020002
 Permit Number: 2489-V1
 Air - Title V Regular Permit Renewal

Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
PDO-1 Unit						
EQT0610	06-97 - PDO Rundown Tank, T-PD1905 Fixed	68000 gallons				8760 hr/yr (All Year)
EQT0611	07-97 - PDO Rundown Tank, T-PD1906 Fixed	68000 gallons				8760 hr/yr (All Year)
EQT0612	08-97 - PDO Storage Tank, T-PD1907	655000 gallons				8760 hr/yr (All Year)
EQT0613	09-97 - PDO Effluent Surge Tank, T-PD1912 Fixed	45000 gallons				8760 hr/yr (All Year)
EQT0614	10-97 - PDO HES Tops Storage Tank, T-PD1913 Fixed	83500 gallons				8760 hr/yr (All Year)
EQT0615	13-97 - PDO PAD Sump, T-PD1802	44883 gallons				8760 hr/yr (All Year)
EQT0616	14A-97 - PDO FAD Transfer Pump Driver, DP-PD1803		125 brake hp			1000 hr/yr (All Year)
EQT0617	16-97 - PDO Catalyst Exhaust Blower, Vent, B-PD1101		1102 lb/hr	15 lb/hr		8760 hr/yr (All Year)
EQT0618	18-97 - PDO Unit Loading			23.57 MM gallons/yr		8760 hr/yr (All Year)
EQT0619	21-97 - Catalyst Recovery System Vent, V-PD1500			3.99 MM gallons/yr		8760 hr/yr (All Year)
EQT0620	35A-97 - COMFAC Firewater Pump Driver, DP-AU501			325 brake hp		1000 hr/yr (All Year)
EQT0621	36A-97 - COMFAC Flare, A-AU701					8760 hr/yr (All Year)
EQT0622	37-97 - COMFAC PAD Impoundment Tank, T-AU601 Open	738818 gallons				8760 hr/yr (All Year)
EQT0623	90-97 - COMFAC Water Tank, T-AU604 Fixed	95000 gallons				8760 hr/yr (All Year)
EQT0624	91-97 - COMFAC Wastewater Tank, T-AU605 Fixed	95000 gallons				8760 hr/yr (All Year)
EQT0625	92A-97 - COMFAC Emergency Generator Driver, DP-AU505			415 brake hp		1000 hr/yr (All Year)
EQT0626	101-00 - PDO Railcar Loading			18.69 MM gallons/yr		8760 hr/yr (All Year)
EQT0627	103-00 - 95 wt% Sulfuric Acid Tank, T-PD1911	9000 gallons				8760 hr/yr (All Year)
EQT0628	104-00 - COMFAC Cooling Water Tower, W-AU401			35000 gallons/min		8760 hr/yr (All Year)
EQT0629	12-02 - Cobalt Feed Screw Conveyor Vent		30 lb/hr	15 lb/hr		8760 hr/yr (All Year)
EQT0630	02-97 - Wet MTBE Storage Tank, T-PD1901	130000 gallons				8760 hr/yr (All Year)
EQT0631	03-97 - PDO Runup Tank, T-PD1916	126900 gallons				8760 hr/yr (All Year)
EQT0632	05-97 - Light Ends Storage Tank, T-PD1904	149000 gallons				8760 hr/yr (All Year)
EQT0633	17-97 - Light Ends Loading					8760 hr/yr (All Year)
EQT0634	C-PD1708 - Vent Scrubber, C-PD1708					8760 hr/yr (All Year)
EQT0635	P-DOT1 - PDO Toluene Tank					8760 hr/yr (All Year)
EQT0636	19-97 - PDO Recovered Catalyst Effluent, T-PD1504					8760 hr/yr (All Year)
EQT0637	20-97 - Light Ends Rec. Col. Blms Purge, C-PD1703					8760 hr/yr (All Year)
EQT0638	MON1 - PDO-MON1					8760 hr/yr (All Year)
EQT0639	MON2 - PDO-MON2					8760 hr/yr (All Year)
EQT0640	MON3 - PDO-MON3					8760 hr/yr (All Year)
EQT0641	MON4 - PDO-MON4					8760 hr/yr (All Year)
EQT0642	MON5 - PDO-MON5					8760 hr/yr (All Year)
EQT0643	MON6 - PDO-MON6					8760 hr/yr (All Year)
EQT0644	MON7 - PDO-MON7					8760 hr/yr (All Year)
EQT0645	MON8 - PDO-MON8					8760 hr/yr (All Year)
EQT0646	MON9 - PDO-MON9					8760 hr/yr (All Year)
EQT0647	MON10 - PDO-MON10					8760 hr/yr (All Year)
EQT0648	MON11 - PDO-MON11					8760 hr/yr (All Year)
EQT0649	MON12 - PDO-MON12					8760 hr/yr (All Year)

INVENTORIES

AI ID: 1136 - Shell Chemical Co - Geismar Plant
 Activity Number: PER20020002
 Permit Number: 2489-V1
 Air - Title V Regular Permit Renewal

Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
PDO-1 Unit						
EQT0650	MON13 - PDO-MON13					8760 hr/yr (All Year)
EQT0651	MON14 - PDO-MON14					8760 hr/yr (All Year)
EQT0652	MON15 - PDO-MON15					8760 hr/yr (All Year)
EQT0653	MON16 - PDO-MON16					8760 hr/yr (All Year)
EQT0654	MON17 - PDO-MON17					8760 hr/yr (All Year)
EQT0655	MON18 - PDO-MON18					8760 hr/yr (All Year)
EQT0656	MON19 - PDO-MON19					8760 hr/yr (All Year)
EQT0657	MON20 - PDO-MON20					8760 hr/yr (All Year)
EQT0658	MON21 - PDO-MON21					8760 hr/yr (All Year)
EQT0659	MON22 - PDO-MON22					8760 hr/yr (All Year)
EQT0729	15-97 - PDO Vacuum System Effluent, T-PD1504					8760 hr/yr (All Year)
FUG0017	01-97 - PDO Fugitive Emissions					8760 hr/yr (All Year)

INVENTORIES

AI ID: 1136 - Shell Chemical Co - Geismar Plant
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 Air - Title V Regular Permit Renewal

Stack Information:	Description	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (°F)
PDO-1 Unit							
EQT0616	14A-97 - PDO PAD Transfer Pump Driver, DP-PD1803	38.8	457	.5		20	800
EQT0617	16-97 - PDO Catalyst Exhaust Blower Vent, B-PD1101	51.97	1700	.83		50	67
EQT0619	21-97 - Catalyst Recovery System Vent, V-PD1500	70.93	3341	1		60	75
EQT0620	35A-97 - COMFAC Firewater Pump Driver, DP-AU501	56.2	1189	.67		20	800
EQT0621	36A-97 - COMFAC Flare, A-AU701			1		150	950
EQT0625	92A-97 - COMFAC Emergency Generator Driver, DP-AU505	71.8	151B	.67		20	800
EQT0629	12-02 - Cobalt Feed Screw Conveyor Vent	324.84	1700	.33		50	67
EQT0634	CPD1708 - Vent Scrubber, C-PD1708						
EQT0636	19-97 - PDO Recovered Catalyst Effluent, T-PD1504						
EQT0637	20-97 - Light Ends Rec. Col. Blms Purge, C-PD1703						
EQT0638	MON1 - PDO-MON1						
EQT0639	MON2 : PDO-MON2						
EQT0640	MON3 - PDO-MON3						
EQT0641	MON4 - PDO-MON4						
EQT0642	MON5 - PDO-MON5						
EQT0643	MON6 - PDO-MON6						
EQT0644	MON7 - PDO-MON7						
EQT0645	MON8 - PDO-MON8						
EQT0646	MON9 - PDO-MON9						
EQT0647	MON10 - PDO-MON10						
EQT0648	MON11 - PDO-MON11						
EQT0649	MON12 - PDO-MON12						
EQT0650	MON13 - PDO-MON13						
EQT0651	MON14 - PDO-MON14						
EQT0652	MON15 - PDO-MON15						
EQT0653	MON16 - PDO-MON16						
EQT0654	MON17 - PDO-MON17						
EQT0655	MON18 - PDO-MON18						
EQT0656	MON19 - PDO-MON19						
EQT0657	MON20 - PDO-MON20						
EQT0658	MON21 - PDO-MON21						
EQT0659	MON22 - PDO-MON22						
EQT0729	15-97 - PDO Vacuum System Effluent, T-PD1504						

INVENTORIES

AI ID: 1136 - Shell Chemical Co - Geismar Plant
 Activity Number: PER20020002
 Permit Number: 2489-V1
 Air - Title V Regular Permit Renewal

Relationships:

ID	Description	Relationship	ID	Description
EQT0630	02-97 - Wet MTBE Storage Tank, T-PD1901	Controlled by	EQT0621	36A-97 - COMFAC Flare, A-AU701
EQT0631	03-97 - PDO Rerun Tank, T-PD1916	Controlled by	EQT0621	36A-97 - COMFAC Flare, A-AU701
EQT0632	05-97 - Light Ends Storage Tank, T-PD1904	Controlled by	EQT0621	36A-97 - COMFAC Flare, A-AU701
EQT0633	17-97 - Light Ends Loading	Vents to	EQT0632	05-97 - Light Ends Storage Tank, T-PD1904
EQT0634	CPD1708 - Vent Scrubber, C-PDI708	Controlled by	EQT0621	36A-97 - COMFAC Flare, A-AU701
EQT0635	PDO Toluene Tank	Controlled by	EQT0621	36A-97 - COMFAC Flare, A-AU701
EQT0729	15-97 - PDO Vacuum System Effluent, T-PD1504	Vents to	UNF0001	PDO-1 Unit

Subject Item Groups:

ID	Group Type	Group Description
UNF0001	Unit or Facility Wide	PDO-1 - PDO-1 Unit

Group Membership:

Annual Maintenance Fee:				
Fee Number	Air Contaminant Source	Multiplier	Units Of Measure	NESHAP Maintenance Fee
0630	Organic Oxides, Alcohols, Glycols (Rated Capacity)	160	MM Lb/Yr	Y

SIC Codes:

2869	Industrial organic chemicals, nec	UNF001
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EMISSION RATES FOR CRITERIA POLLUTANTS

AI ID: 1136 - Shell Chemical Co - Geismar Plant

Activity Number: PER20020002

Permit Number: 2489-V1

Air - Title V Regular Permit Renewal

Subject Item	CO			NOx			PM10			SO2			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
PDO-1 Unit															
EQT 0610 06-97													0.002	0.003	0.01
EQT 0611 07-97													0.002	0.003	0.01
EQT 0612 08-97													0.008	0.011	0.03
EQT 0613 09-97													0.001	0.002	0.01
EQT 0614 10-97													0.001	0.002	0.01
EQT 0615 13-97													0.095	0.284	0.42
EQT 0616 14A-97	2.388	2.388	1.17	1.900	1.900	0.95	0.275	0.275	0.14	0.256	0.256	0.13	0.314	0.314	0.16
EQT 0617 16-97							0.038	2.756	0.16						
EQT 0618 18-97													0.033	0.58	0.14
EQT 0619 21-97													1.356	2.033	5.94
EQT 0620 35A-97	6.078	6.078	3.04	4.940	4.940	2.47	0.715	0.715	0.36	0.666	0.666	0.33	0.817	0.817	0.41
EQT 0621 36A-97	18.678	179.982	81.81	2.959	18.291	13.09	0.328	1.785	1.43	0.014	0.029	0.06	3.393	44.493	14.86
EQT 0622 37-97													1.031	3.094	4.52
EQT 0623 90-97													0.002	0.003	0.01
EQT 0624 91-97													0.002	0.003	0.01
EQT 0625 92A-97	7.761	7.761	3.88	6.308	6.308	3.15	0.913	0.913	0.46	0.851	0.851	0.43	1.043	1.043	0.52
EQT 0626 101-00													0.033	0.580	0.14
EQT 0628 104-00													0.455	0.911	2.00
EQT 0629 12-02															
FUG 0017 01-97													3.10	3.10	13.58

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote.

Emission rates Notes:

EQT 0616	NOx	Max lb/hr	- PSD-LA-611(M1)	Which Months: All Year
EQT 0616	NOx	Tons/Year	- PSD-LA-611(M1)	Which Months: All Year

EMISSION RATES FOR CRITERIA POLLUTANTS

AI ID: 1136 - Shell Chemical Co - Geismar Plant

Activity Number: PER20020002

Permit Number: 2489-V1

Air - Title V Regular Permit Renewal

EQT 0616	CO	Max lb/hr	- PSD-LA-611(M1)	Which Months: All Year
EQT 0616	CO	Tons/Year	- PSD-LA-611(M1)	Which Months: All Year
EQT 0620	NOx	Max lb/hr	- PSD-LA-611(M1)	Which Months: All Year
EQT 0620	NOx	Tons/Year	- PSD-LA-611(M1)	Which Months: All Year
EQT 0620	CO	Max lb/hr	- PSD-LA-611(M1)	Which Months: All Year
EQT 0620	CO	Tons/Year	- PSD-LA-611(M1)	Which Months: All Year
EQT 0621	NOx	Max lb/hr	- PSD-LA-611(M1)	Which Months: All Year
EQT 0621	NOx	Tons/Year	- PSD-LA-611(M1)	Which Months: All Year
EQT 0621	CO	Max lb/hr	- PSD-LA-611(M1)	Which Months: All Year
EQT 0621	CO	Tons/Year	- PSD-LA-611(M1)	Which Months: All Year
EQT 0625	NOx	Max lb/hr	- PSD-LA-611(M1)	Which Months: All Year
EQT 0625	NOx	Tons/Year	- PSD-LA-611(M1)	Which Months: All Year
EQT 0625	CO	Max lb/hr	- PSD-LA-611(M1)	Which Months: All Year
EQT 0625	CO	Tons/Year	- PSD-LA-611(M1)	Which Months: All Year

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 1136 - Shell Chemical Co - Geismar Plant

Activity Number: PER20020002

Permit Number: 2489-V1

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0613 09-97	Acetaldehyde	0.001	0.001	0.01
	Acrolein	0.001	0.001	0.01
	Ethylene glycol	0.001	0.001	0.01
	Ethylene oxide	0.001	0.001	0.01
	Methyl Tertiary Butyl Ether	0.001	0.001	0.01
	Methyl ethyl ketone	0.001	0.001	0.01
	Naphthalene	0.001	0.001	0.01
	Propionaldehyde	0.001	0.001	0.01
	Toluene	0.001	0.001	0.01
EQT 0615 13-97	Acetaldehyde	0.001	0.001	0.01
	Acrolein	0.001	0.001	0.01
	Ethylene glycol	0.001	0.001	0.01
	Ethylene oxide	0.001	0.001	0.01
	Methanol	0.001	0.001	0.01
	Methyl Tertiary Butyl Ether	0.014	0.041	0.06
	Toluene	0.081	0.242	0.35
EQT 0616 14A-97	1,3-Butadiene	0.001	0.001	0.01
	Acetaldehyde	0.001	0.001	0.01
	Acrolein	0.001	0.001	0.01
	Benzene	0.001	0.001	0.01
	Formaldehyde	0.001	0.001	0.01
	Naphthalene	0.001	0.001	0.01
	Polynuclear Aromatic Hydrocar	0.001	0.001	0.01
	Toluene	0.001	0.001	0.01
	Xylene (mixed isomers)	0.001	0.001	0.01
EQT 0619 21-97	Acetaldehyde	0.065	0.097	0.28
	Acrolein	0.294	0.441	1.29
	Ethylene glycol	0.001	0.001	0.01
	Ethylene oxide	0.089	0.134	0.39
	Methyl Tertiary Butyl Ether	0.075	0.113	0.33
	Methyl ethyl ketone	0.001	0.001	0.01
	Naphthalene	0.001	0.001	0.01
	Propionaldehyde	0.505	0.757	2.21
	Toluene	0.125	0.188	0.55

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 1136 - Shell Chemical Co - Geismar Plant

Activity Number: PER20020002

Permit Number: 2489-V1

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0619 21-97	Xylene (mixed isomers)	0.001	0.001	0.01
EQT 0620 35A-97	1,3-Butadiene	0.001	0.001	0.01
	Acetaldehyde	0.002	0.002	0.01
	Acrolein	0.001	0.001	0.01
	Benzene	0.002	0.002	0.01
	Formaldehyde	0.003	0.003	0.01
	Naphthalene	0.001	0.001	0.01
	Polynuclear Aromatic Hydrocar	0.001	0.001	0.01
	Toluene	0.001	0.001	0.01
EQT 0621 36A-97	Xylene (mixed isomers)	0.001	0.001	0.01
	Acetaldehyde	0.513	6.834	2.25
	Acrolein	0.004	0.031	0.02
	Ethylene glycol	0.001	0.019	0.01
	Ethylene oxide	0.110	1.458	0.48
	Methyl Tertiary Butyl Ether	2.349	32.079	10.29
	Propionaldehyde	0.020	0.280	0.09
	Toluene	0.188	2.032	0.83
EQT 0622 37-97	n-Hexane	0.012	0.024	0.05
	n-butyl alcohol	0.001	0.023	0.01
	Acetaldehyde	0.001	0.001	0.01
	Acrolein	0.001	0.001	0.01
	Ethylene glycol	0.001	0.001	0.01
	Ethylene oxide	0.001	0.002	0.01
	Methanol	0.001	0.001	0.01
EQT 0623 90-97	Methyl Tertiary Butyl Ether	0.149	0.448	0.65
	Toluene	0.879	2.637	3.85
	Acetaldehyde	0.001	0.001	0.01
	Acrolein	0.001	0.001	0.01
	Ethylene glycol	0.001	0.001	0.01
	Ethylene oxide	0.001	0.001	0.01
	Methyl Tertiary Butyl Ether	0.001	0.001	0.01
	Methyl ethyl ketone	0.001	0.001	0.01
EQT 0623 90-97	Naphthalene	0.001	0.001	0.01
	Propionaldehyde	0.001	0.001	0.01

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 1136 - Shell Chemical Co - Geismar Plant

Activity Number: PER20020002

Permit Number: 2489-V1

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0623 90-97	Toluene	0.001	0.001	0.01
EQT 0624 91-97	Acetaldehyde	0.001	0.001	0.01
	Acrolein	0.001	0.001	0.01
	Ethylene glycol	0.001	0.001	0.01
	Ethylene oxide	0.001	0.001	0.01
	Methyl Tertiary Butyl Ether	0.001	0.001	0.01
	Methyl ethyl ketone	0.001	0.001	0.01
	Naphthalene	0.001	0.001	0.01
	Propionaldehyde	0.001	0.001	0.01
	Toluene	0.001	0.001	0.01
	1,3-Butadiene	0.001	0.001	0.01
EQT 0625 92A-97	Acetaldehyde	0.002	0.002	0.01
	Acrolein	0.001	0.001	0.01
	Benzene	0.003	0.003	0.01
	Formaldehyde	0.003	0.003	0.01
	Naphthalene	0.001	0.001	0.01
	Toluene	0.001	0.001	0.01
	Xylene (mixed Isomers)	0.001	0.001	0.01
	Sulfuric acid	0.001	0.001	0.01
FUG 0017 01-97	Acetaldehyde	0.003	0.003	0.01
	Ethylene glycol	0.001	0.001	0.01
	Ethylene oxide	0.075	0.075	0.33
	Methanol	0.055	0.055	0.24
	Methyl Tertiary Butyl Ether	0.885	0.885	3.87
	Toluene	0.629	0.629	2.76
UNF 0001 PDO-1	1,3-Butadiene			0.03
	Acetaldehyde			2.62
	Acrolein			1.39
	Benzene			0.03
	Ethylene glycol			0.08
	Ethylene oxide			1.25
	Formaldehyde			0.03
	Methanol			0.26
	Methyl Tertiary Butyl Ether			15.23

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 1136 - Shell Chemical Co - Geismar Plant

Activity Number: PER20020002

Permit Number: 2489-V1

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
UNF 0001 PDO-1	Methyl ethyl ketone			0.04
	Naphthalene			0.07
	Polynuclear Aromatic Hydrocar			0.02
	Propionaldehyde			2.33
	Sulfuric acid			0.01
	Toluene			8.40
	Xylene (mixed isomers)			0.04
	n-Hexane			0.05
	n-butyl alcohol			0.01

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote.

SPECIFIC REQUIREMENTS

AI ID: 1136 - Shell Chemical Co - Geismar Plant

Activity Number: PER20020002

Permit Number: 2489-V1

Air - Title V Regular Permit Renewal

EQT0613 09-97 - PDO Effluent Surge Tank, T-PD1912 Fixed

1 [LAC 33:III.5109.A]

Shall control Class I and Class II toxic air pollutants (TAP) to a degree that constitutes Maximum Achievable Control Technology (MACT).

Shall comply with 40 CFR 63 Subpart G requirements for Group II storage vessels until the compliance date of 40 CFR 63 Subpart FFFF. From the compliance date of 40 CFR 63 Subpart FFFF, if applicable, the tank shall comply with 40 CFR 63 Subpart G. Determined as MACT.

EQT0615 13-97 - PDO PAD Sump, T-PD1802

2 [LAC 33:III.5109.A]

Shall control Class I and Class II toxic air pollutants (TAP) to a degree that constitutes Maximum Achievable Control Technology (MACT).

Shall comply with 40 CFR 63 Subpart G requirements for Group II storage vessels until the compliance date of 40 CFR 63 Subpart FFFF. From the compliance date of 40 CFR 63 Subpart FFFF, if applicable, the tank shall comply with 40 CFR 63 Subpart G. Determined as MACT.

EQT0616 14A-97 - PDO PAD Transfer Pump Driver, DP-PD1803

3 [LAC 33:III.1101.B]

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified

Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: Six-minute average

Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request.

Shall maintain CO emissions <= 8.5 g/bhp-hr - Determined as BACT - PSD-LA-61(M1).

Shall maintain NOx emissions <= 6.9 g/bhp-hr - Determined as BACT - PSD-LA-61(M1).

EQT0617 16-97 - PDO Catalyst Exhaust Blower Vent, B-PD1101

8 [LAC 33:III.1305]

Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.A.1-7.

EQT0619 21-97 - Catalyst Recovery System Vent, V-PD1500

9 [LAC 33:III.5109.A]

Shall control Class I and Class II toxic air pollutants (TAP) to a degree that constitutes Maximum Achievable Control Technology (MACT).

Shall comply with LAC 33:III.2115. Determined as MACT.

EQT0620 35A-97 - COMFAC Firewater Pump Driver, DP-AU501

SPECIFIC REQUIREMENTS**AID: 1136 - Shell Chemical Co - Geismar Plant****Activity Number: PER20020002****Permit Number: 2489-V1****Air - Title V Regular Permit Renewal****EQT0620 35A-97 - COMFAC Firewater Pump Driver, DP-AU501**

10 [LAC 33:III.1101.B] Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or trapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

11 [LAC 33:III.1311.C] Which Months: All Year Statistical Basis: None specified
Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

12 [LAC 33:III.1513] Which Months: All Year Statistical Basis: Six-minute average
Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request.

13 [LAC 33:III.509] Shall maintain CO emissions <= 8.5 g/bhp-hr - Determined as BACT - PSD-LA-61(M1).

14 [LAC 33:III.509] Shall maintain NOx emissions <= 6.9 g/bhp-hr - Determined as BACT - PSD-LA-61(M1).

EQT0621 36A-97 - COMFAC Flare, A-AU701

15 [LAC 33:III.1311.C] Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

16 [LAC 33:III.1513] Which Months: All Year Statistical Basis: Six-minute average
Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request.

17 [LAC 33:III.5109.A] Shall control Class I and Class II toxic air pollutants (TAP) to a degree that constitutes Maximum Achievable Control Technology (MACT). Shall comply with 40 CFR 60.18. Determined as MACT.

EQT0623 90-97 - COMFAC Wastewater Tank, T-AU604 Fixed

18 [LAC 33:III.5109.A] Shall control Class I and Class II toxic air pollutants (TAP) to a degree that constitutes Maximum Achievable Control Technology (MACT). Shall comply with 40 CFR 63 Subpart G requirements for Group II storage vessels until the compliance date of 40 CFR 63 Subpart FFFF. From the compliance date of 40 CFR 63 Subpart FFFF, if applicable, the tank shall comply with 40 CFR 63 Subpart FFFF, otherwise, the tank shall comply with 40 CFR 63 Subpart G. Determined as MACT.

EQT0624 91-97 - COMFAC Wastewater Tank, T-AU605 Fixed

19 [LAC 33:III.5109.A] Shall control Class I and Class II toxic air pollutants (TAP) to a degree that constitutes Maximum Achievable Control Technology (MACT). Shall comply with 40 CFR 63 Subpart G requirements for Group II storage vessels until the compliance date of 40 CFR 63 Subpart FFFF. From the compliance date of 40 CFR 63 Subpart FFFF, if applicable, the tank shall comply with 40 CFR 63 Subpart FFFF, otherwise, the tank shall comply with 40 CFR 63 Subpart G. Determined as MACT.

SPECIFIC REQUIREMENTS

AI ID: 1136 - Shell Chemical Co - Geismar Plant

Activity Number: PER20020002

Permit Number: 2489-V1

Air - Title V Regular Permit Renewal

EQT0625 92A-97 - COMFAC Emergency Generator Driver, DP-AU505

20 [LAC 33:III.1101.B]

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified

Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: Six-minute average

Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request.

Shall maintain CO emissions <= 8.5 g/bhp-hr - Determined as BACT - PSD-LA-611(M1).

Shall maintain NOx emissions <= 6.9 g/bhp-hr - Determined as BACT - PSD-LA-611(M1).

EQT0626 101-00 - PDO Railcar Loading

25 [40 CFR 63.2430]

Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for Group 2 transfer racks.

EQT0628 104-00 - COMFAC Cooling Water Tower, W-AU401

26 [40 CFR 63.2490]

Shall comply with 40 CFR 63 Subpart FFFF as specified in 40 CFR 63.2490.

EQT0629 12-02 - Cobalt Feed Screw Conveyor Vent

27 [LAC 33:III.1305]

Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.A.1-7.

EQT0630 02-97 - Wet MTBE Storage Tank, T-PD1901

28 [40 CFR 60.112b(a)(3)(ii)]

VOC, Total >= 95 % reduction efficiency using a closed vent system and control device. Subpart Kb. [40 CFR 60.112b(a)(3)(ii)] Which Months: All Year Statistical Basis: None specified

Equip with a closed vent system and control device. Design the closed vent system to collect all VOC vapors and gases discharged from the storage vessel and operate with no detectable emissions. Subpart Kb. [40 CFR 60.112b(a)(3)]

Equip with a closed vent system and control device as specified in 40 CFR 60.112b(a)(3). Subpart Kb. [40 CFR 60.112b(b)(1)]

Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Keep copies of all records for the life of the source as specified by 40 CFR 60.116b(a). Subpart Kb. [40 CFR 60.116b(b)]

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- 32 [40 CFR 60.116b(c)] VOC storage data recordkeeping by electronic or hard copy at the approved frequency. Records consist of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. Keep copies of all records for at least two years.
Subpart Kb. [40 CFR 60.116b(c)]
- 33 [40 CFR 63.2470] Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for Group 1 storage tanks.
- 34 [LAC 33:III.2103.B] Equip with a submerged fill pipe.
- 35 [LAC 33:III.2103.E.1] VOC, Total $\geq 95\%$ control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year.
Which Months: All Year Statistical Basis: None specified
Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.
Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e.
- 36 [LAC 33:III.2103.E] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable.

EQT0631 03-97 - PDO Rerun Tank, T-PD1916

- 39 [40 CFR 60.112b(a)(3)(ii)] VOC, Total $\geq 95\%$ reduction efficiency using a closed vent system and control device. Subpart Kb. [40 CFR 60.112b(a)(3)(ii)]
Which Months: All Year Statistical Basis: None specified
Equip with a closed vent system and control device. Design the closed vent system to collect all VOC vapors and gases discharged from the storage vessel and operate with no detectable emissions. Subpart Kb. [40 CFR 60.112b(a)(3)]
- 40 [40 CFR 60.112b(a)(3)] Equip with a closed vent system and control device as specified in 40 CFR 60.112b(a)(3). Subpart Kb. [40 CFR 60.112b(b)(1)]
- 41 [40 CFR 60.112b(b)(1)] Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Keep copies of all records for the life of the source as specified by 40 CFR 60.116b(a). Subpart Kb. [40 CFR 60.116b(b)]
- 42 [40 CFR 60.116b(b)] VOC storage data recordkeeping by electronic or hard copy at the approved frequency. Records consist of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. Keep copies of all records for at least two years.
Subpart Kb. [40 CFR 60.116b(c)]
- 43 [40 CFR 60.116b(c)] Equip with a submerged fill pipe.
- 44 [LAC 33:III.2103.B] VOC, Total $\geq 95\%$ control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year.
Which Months: All Year Statistical Basis: None specified
Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.
Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e.
- 45 [LAC 33:III.2103.E.]
- 46 [LAC 33:III.2103.E]
- 47 [LAC 33:III.2103.H.3]

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Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33.III.2103.I.1 - 7, as applicable.

EQT0632 05-97 - Light Ends Storage Tank, T-PD1904

- 49 [40 CFR 60.112(b)(a)(3)(ii)] VOC, Total \geq 95 % reduction efficiency using a closed vent system and control device. Subpart Kb. [40 CFR 60.112b(a)(3)(ii)]
 Which Months: All Year Statistical Basis: None specified
 Equip with a closed vent system and control device. Design the closed vent system to collect all VOC vapors and gases discharged from the storage vessel and operate with no detectable emissions. Subpart Kb. [40 CFR 60.112b(a)(3)]
- 50 [40 CFR 60.112(b)(a)(3)] Equip with a closed vent system and control device as specified in 40 CFR 60.112b(a)(3). Subpart Kb. [40 CFR 60.112b(b)(1)]
- 51 [40 CFR 60.112(b)(b)(1)] Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Keep copies of all records for the life of the source as specified by 40 CFR 60.116b(a). Subpart Kb. [40 CFR 60.116b(b)]
- 52 [40 CFR 60.116b(b)] VOC storage data recordkeeping by electronic or hard copy at the approved frequency. Records consist of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. Keep copies of all records for at least two years.
 Subpart Kb. [40 CFR 60.116b(c)]
- 53 [40 CFR 60.116b(c)] Equip with a submerged fill pipe.

- VOC, Total \geq 95 % control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year.
 Which Months: All Year Statistical Basis: None specified

- Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.
 Determine VOC maximum true vapor pressure using the methods in LAC 33.III.2103.H.3.a-e.
 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33.III.2103.I.1 - 7, as applicable.

EQT0633 17-97 - Light Ends Loading

- 59 [40 CFR 63.243(j)] Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for Group 2 transfer racks.
 Prevent spills during the attachment and disconnection of filling lines or arms. Equip loading and vapor lines with fittings which close automatically when disconnected, or equip to permit residual VOC in the loading line to discharge into a collection system or disposal or recycling system.
 VOC, Total \geq 90 % DRE, using a vapor disposal system.
 Which Months: All Year Statistical Basis: None specified
 Discontinue loading or unloading through the affected transfer lines when a leak is observed, do not resume loading or unloading until the observed leak is repaired.
- 60 [LAC 33.III.2107.B]
- 61 [LAC 33.III.2107.B]
- 62 [LAC 33.III.2107.C]

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EQT0633 17-97 - Light Ends Loading

- 63 [LAC 33:III.2107.C] VOC, Total monitored by visual, audible, and/or olfactory during loading or unloading, to detect leaks.
 Which Months: All Year Statistical Basis: None specified
 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2107.D.1 and 2.
- 64 [LAC 33:III.2107.D] Determine compliance with LAC 33:III.2107.B using the methods in LAC 33:III.2107.E.1 through 5, as appropriate.

EQT0635 PDOTT - PDO Toluene Tank

- 66 [40 CFR 60.112b(a)(3)(ii)] VOC, Total $\geq 95\%$ reduction efficiency using a closed vent system and control device. Subpart Kb. [40 CFR 60.112b(a)(3)(ii)]
 Which Months: All Year Statistical Basis: None specified
 Equip with a closed vent system and control device. Design the closed vent system to collect all VOC vapors and gases discharged from the storage vessel and operate with no detectable emissions. Subpart Kb. [40 CFR 60.112b(a)(3)]
 Equip with a closed vent system and control device as specified in 40 CFR 60.112b(a)(3). Subpart Kb. [40 CFR 60.112b(b)(1)]
 Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Keep copies of all records for the life of the source as specified by 40 CFR 60.116b(a). Subpart Kb. [40 CFR 60.116b(b)]
 VOC storage data recordkeeping by electronic or hard copy at the approved frequency. Records consist of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. Keep copies of all records for at least two years.
 Subpart Kb. [40 CFR 60.116b(c)]
 Equip with a submerged fill pipe.
 VOC, Total $\geq 95\%$ control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year.
 Which Months: All Year Statistical Basis: None specified
 Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.
 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3-a-e.
 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable.
- 71 [LAC 33:III.2103.B]
 72 [LAC 33:III.2103.E.1] Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for Group 1 batch process vents.
- 73 [LAC 33:III.2103.E] Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for Group 1 batch process vents.
- 74 [LAC 33:III.2103.H.3]
 75 [LAC 33:III.2103.I] Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for Group 1 batch process vents.
- 76 [40 CFR 63.2460] Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for Group 1 batch process vents.
- 77 [40 CFR 63.2460]

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EQT0640 MON3 - PDO-MON3

78 [40 CFR 63.2475] Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for Group 2 tranfer racks.

EQT0642 MON5 - PDO-MON5

79 [40 CFR 63.2490] Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for heat exchangers.

EQT0643 MON6 - PDO-MON6

80 [40 CFR 63.2490] Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for heat exchangers.

EQT0644 MON7 - PDO-MON7

81 [40 CFR 63.2490] Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for heat exchangers.

EQT0645 MON8 - PDO-MON8

82 [40 CFR 63.2490] Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for heat exchangers.

EQT0646 MON9 - PDO-MON9

83 [40 CFR 63.2490] Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for heat exchangers.

EQT0647 MON10 - PDO-MON10

84 [40 CFR 63.2490] Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for heat exchangers.

EQT0648 MON11 - PDO-MON11

85 [40 CFR 63.2490] Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for heat exchangers.

EQT0649 MON12 - PDO-MON12

86 [40 CFR 63.2490] Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for heat exchangers.

EQT0650 MON13 - PDO-MON13

87 [40 CFR 63.2490] Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for heat exchangers.

EQT0651 MON14 - PDO-MON14

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88 [40 CFR 63.2490]

Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for heat exchangers.

EQT0652 MON15 - PDO-MON15

89 [40 CFR 63.2490]

Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for heat exchangers.

EQT0653 MON16 - PDO-MON16

90 [40 CFR 63.2490]

Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for heat exchangers.

EQT0654 MON17 - PDO-MON17

91 [40 CFR 63.2490]

Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for heat exchangers.

EQT0655 MON18 - PDO-MON18

92 [40 CFR 63.2485]

Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for Group 2 wastewater streams.

EQT0656 MON19 - PDO-MON19

93 [40 CFR 63.2485]

Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for Group 2 wastewater streams.

EQT0657 MON20 - PDO-MON20

94 [40 CFR 63.2485]

Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for Group 2 wastewater streams.

EQT0658 MON21 - PDO-MON21

95 [40 CFR 63.2485]

Shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for Group 2 wastewater streams.

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96 [40 CFR 63.162(c)]

Identify each piece of equipment in a process unit such that it can be distinguished readily from equipment that is not subject to 40 CFR 63 Subpart H. Subpart H. [40 CFR 63.162(c)]

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97 [40 CFR 63.162(f)]

Clearly identify leaking equipment, for leaking equipment detected as specified in 40 CFR 63.163, 40 CFR 63.164, 40 CFR 63.168, 40 CFR 63.169, and 40 CFR 63.172 through 63.174. The identification may be removed after the equipment is repaired, except for valves or for connectors subject to 40 CFR 63.174(c)(1)(i). The identification on a valve may be removed after it has been monitored as specified in 40 CFR 63.168(f)(3) and 63.175(e)(i)(D), and no leak has been detected during the follow-up monitoring. If electing to comply using the provisions of 40 CFR 63.174(c)(1)(i), the identification on a connector may be removed after it is monitored as specified in 40 CFR 63.174(c)(1)(i) and no leak is detected during monitoring. Subpart H. [40 CFR 63.162(f)]

Pumps in light liquid service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 monthly to detect leaks, except as provided in 40 CFR 63.162(b) and 63.163(e) through (j). If a reading of 10,000 ppm (phase I), 5,000 ppm (phase II), or 5,000 ppm (phase III, pumps handling polymerizing monomers), 2,000 ppm (phase III, pumps in food/medical service), or 1,000 ppm (phase III, all other pumps) or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.163(c). Subpart H. [40 CFR 63.163(b)(1)]

Which Months: All Year Statistical Basis: None specified

Pumps in light liquid service: Presence of a leak monitored by visual inspection/determination weekly (calendar). Monitor for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal, a leak is detected. If a leak is detected, initiate the repair provisions specified in 40 CFR 63.163(c). Subpart H. [40 CFR 63.163(b)(3)]

Which Months: All Year Statistical Basis: None specified

Pumps in light liquid service: Make a first attempt at repair no later than 5 calendar days after a leak is detected, and complete repairs no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 63.163(c)(3) and 40 CFR 63.171. Subpart H. [40 CFR 63.163(c)]

Pumps in light liquid service: Implement a quality improvement program for pumps that complies with the requirements of 40 CFR 63.176, if, in Phase III, calculated on a 6-month rolling average, the greater of either 10 percent of the pumps in a process unit or three pumps in a process unit leak. Subpart H. [40 CFR 63.163(d)(2)]

Pumps in light liquid service: Determine percent leaking pumps using the equation in 40 CFR 63.163(d)(4). Subpart H. [40 CFR 63.163(d)(4)]

Pumps in light liquid service (dual mechanical seal system): Operate with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or equip with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of 40 CFR 63.172; or equip with a closed-loop system that purges the barrier fluid into a process stream. Comply with this requirement instead of the requirements in 40 CFR 63.163(a) through (d). Subpart H. [40 CFR 63.163(e)(1)]

Pumps in light liquid service (dual mechanical seal system): Ensure that the barrier fluid is not in light liquid service. Comply with this requirement instead of the requirements in 40 CFR 63.163(a) through (d). Subpart H. [40 CFR 63.163(e)(2)]

Pumps in light liquid service (dual mechanical seal system): Equip barrier fluid system with a sensor that will detect failure of the seal system, barrier fluid system, or both. Comply with this requirement instead of the requirements in 40 CFR 63.163(a) through (d). Subpart H. [40 CFR 63.163(e)(3)]

Pumps in light liquid service (dual mechanical seal system): Presence of a leak monitored by visual inspection/determination weekly (calendar). Monitor for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, monitor the pump as specified in 40 CFR 63.180(b) to determine if there is a leak of organic HAP in the barrier fluid. If an instrument reading of 1,000 ppm or greater is measured, a leak is detected. If a leak is detected, initiate the repair provisions in 40 CFR 63.163(e)(6). Comply with this requirement instead of the requirements in 40 CFR 63.163(a) through (d). Subpart H. [40 CFR 63.163(e)(4)]

Which Months: All Year Statistical Basis: None specified

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- 107 [40 CFR 63.163(e)(6)(i)] Pumps in light liquid service (dual mechanical seal system): Determine, based on design considerations and operating experience, criteria that indicates failure of the seal system, the barrier fluid system, or both. Comply with this requirement instead of the requirements in 40 CFR 63.163(a) through (d). Subpart H. [40 CFR 63.163(e)(6)(i)]
- 108 [40 CFR 63.163(e)(6)] Pumps in light liquid service (dual mechanical seal system): Make a first attempt at repair no later than 5 calendar days after each leak is detected, and complete repairs no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 63.171. Comply with this requirement instead of the requirements in 40 CFR 63.163(a) through (d). Subpart H. [40 CFR 63.163(e)(6)]
- 109 [40 CFR 63.163(e)] Pumps in light liquid service (dual mechanical seal system - sensor): Equipment/operational data monitored by visual inspection/determination daily, or equip with an audible alarm unless the pump is located within the boundary of an unnamed plant site. If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criteria established in 40 CFR 63.163(e)(6), a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.163(e)(6). Comply with this requirement instead of the requirements in 40 CFR 63.163(a) through (d). Subpart H. [40 CFR 63.163(e)]
- 110 [40 CFR 63.163(h)] Which Months: All Year Statistical Basis: None specified Pumps in light liquid service (unnanned plant site): Presence of a leak monitored by visual inspection/determination at the regulation's specified frequency. Monitor each pump as often as practicable and at least monthly. Comply with this requirement instead of the weekly visual inspection requirement of 40 CFR 63.163(b)(3) and (e)(4), and the daily requirements of 40 CFR 63.163(e)(5). Subpart H. [40 CFR 63.163(h)]
- 111 [40 CFR 63.163(j)(1)] Which Months: All Year Statistical Basis: None specified Pumps in light liquid service (unsafe-to-monitor): Determine that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 63.163(b) through (d). Comply with this requirement instead of the requirements in 40 CFR 63.163(b) through (e). Subpart H. [40 CFR 63.163(j)(1)]
- 112 [40 CFR 63.163(j)(2)] Pumps in light liquid service (unsafe-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Maintain a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable. Comply with this requirement instead of the requirements in 40 CFR 63.163(b) through (e). Subpart H. [40 CFR 63.163(j)(2)]
- 113 [40 CFR 63.164(a)] Which Months: All Year Statistical Basis: None specified Compressors: Equip with a seal system that includes a barrier fluid system and that prevents leakage of process fluid to the atmosphere, except as provided in 40 CFR 63.162(b) and 40 CFR 63.164(h) and (i). Subpart H. [40 CFR 63.164(a)]
- 114 [40 CFR 63.164(b)] Compressors: Operate the seal system with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or equip with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of 40 CFR 63.172; or equip with a closed-loop system that purges the barrier fluid directly into a process stream. Subpart H. [40 CFR 63.164(b)]
- 115 [40 CFR 63.164(c)] Compressors: Ensure that the barrier fluid is not in light liquid service. Subpart H. [40 CFR 63.164(c)]
- 116 [40 CFR 63.164(d)] Compressors: Equip each barrier fluid system as described in 40 CFR 63.164(a) through (c) with a sensor that will detect failure of the seal system, barrier fluid system, or both. Subpart H. [40 CFR 63.164(d)]
- 117 [40 CFR 63.164(e)(2)] Compressors (sensor): Determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. Subpart H. [40 CFR 63.164(e)(2)]
- 118 [40 CFR 63.164(g)] Compressors: Make a first attempt at repair no later than 5 calendar days after each leak is detected, and complete repairs no later than 15 calendar days after each leak is detected, except as provided in 40 CFR 63.171. Subpart H. [40 CFR 63.164(g)]

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- Compressors (no detectable emissions): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once initially and annually, and at other times requested by DEQ. Comply with this requirement instead of the requirements in 40 CFR 63.164(a) through (h). Subpart H. [40 CFR 63.164(i)(2)]
- Which Months: All Year Statistical Basis: None specified
- Compressors (sensor): Equipment/operational data monitored by visual inspection/determination daily, or equip with an alarm, unless the compressor is located within the boundary of an unmanned plant site. If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined under 40 CFR 63.164(e)(2), a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.164(g). Subpart H.
- Which Months: All Year Statistical Basis: None specified
- Pressure relief device in gas/vapor service: Organic HAP < 500 ppm above background except during pressure releases, as determined by the method specified in 63.180(c). Subpart H. [40 CFR 63.165(a)]
- Which Months: All Year Statistical Basis: None specified
- Pressure relief devices in gas/vapor service: After each pressure release, return to a condition indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 63.171. Subpart H. [40 CFR 63.165(b)(1)]
- Pressure relief devices in gas/vapor service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 within 5 days (calendar) after the pressure release and being returned to organic HAP service, to confirm the condition indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in 40 CFR 63.180(c). Subpart H. [40 CFR 63.165(b)(2)]
- Which Months: All Year Statistical Basis: None specified
- Pressure relief devices in gas/vapor service (rupture disk): After each pressure release, install a new rupture disk upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 63.171. Comply with this requirement instead of the requirements in 40 CFR 63.165(a) and (b). Subpart H. [40 CFR 63.165(d)(2)]
- Sampling connection systems: Equip with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 63.162(b). Operate the system as specified in 40 CFR 63.166(b). Subpart H.
- Open-ended valves or lines: Equip with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 63.162(b) and 40 CFR 63.167(d) and (e). Ensure that the cap, blind flange, plug or second valve seals the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance or repair. Operate each open-ended valve or line equipped with a second valve in a manner such that the valve on the process fluid end is closed before the second valve is closed. Subpart H.
- Valves in gas/vapor service or light liquid service (Phase I): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 quarterly, as specified in 40 CFR 63.180(b). If an instrument reading of 10,000 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.168(f). Subpart H. [40 CFR 63.168(c)]
- Which Months: All Year Statistical Basis: None specified
- Valves in gas/vapor service or light liquid service (Phase II): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 quarterly, as specified in 40 CFR 63.180(b). If an instrument reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.168(f). Subpart H. [40 CFR 63.168(c)]
- Which Months: All Year Statistical Basis: None specified
- 119 [40 CFR 63.164(i)(2)]
- 120 [40 CFR 63.164]
- 121 [40 CFR 63.165(a)]
- 122 [40 CFR 63.165(b)(1)]
- 123 [40 CFR 63.165(b)(2)]
- 124 [40 CFR 63.165(d)(2)]
- 125 [40 CFR 63.166]
- 126 [40 CFR 63.167]
- 127 [40 CFR 63.168(c)]
- 128 [40 CFR 63.168(c)]

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- 129 [40 CFR 63.168(d)(1)] Valves in gas/vapor service or light liquid service (Phase III, 2 percent or greater leaking valves): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 monthly, as specified in 40 CFR 63.180(b); or implement a quality improvement program for valves that complies with the requirements of 40 CFR 63.175 and monitor quarterly. If an instrument reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.168(f). If electing to implement a quality improvement program, follow the procedures in 40 CFR 63.175. Subpart H. [40 CFR 63.168(d)(1)]
- Which Months: All Year Statistical Basis: None specified
- 130 [40 CFR 63.168(d)(2)] Valves in gas/vapor service or light liquid service (Phase III, less than 2 percent leaking valves): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 quarterly, as specified in 40 CFR 63.180(b). If an instrument reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.168(f). Permittee may elect to comply with the alternate standards in 40 CFR 63.168(d)(3) and (d)(4). Subpart H. [40 CFR 63.168(d)(2)]
- Which Months: All Year Statistical Basis: None specified
- 131 [40 CFR 63.168(e)(1)] Valves in gas/vapor service or light liquid service: Determine percent leaking valves using the equation in 40 CFR 63.168(e)(1). Subpart H. [40 CFR 63.168(e)(1)]
- 132 [40 CFR 63.168(f)(3)] Valves in gas/vapor service or light liquid service (after leak repair): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once within three months (at least) after repair to determine whether the valve has resumed leaking. Subpart H. [40 CFR 63.168(f)(3)]
- Which Months: All Year Statistical Basis: None specified
- 133 [40 CFR 63.168(f)] Valves in gas/vapor service or light liquid service: Make a first attempt at repair no later than 5 calendar days after a leak is detected, and complete repairs no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 63.171. Subpart H. [40 CFR 63.168(f)]
- 134 [40 CFR 63.168(h)(1)] Valves in gas/vapor service or light liquid service (unsafe-to-monitor): Demonstrate that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 63.168(b) through (d). Comply with this requirement instead of the requirements in 40 CFR 63.168(b) through (f). Subpart H. [40 CFR 63.168(h)(1)]
- 135 [40 CFR 63.168(h)(2)] Valves in gas/vapor service or light liquid service (unsafe-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Maintain a written plan that requires monitoring of the valves as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable. Comply with this requirement instead of the requirements in 40 CFR 63.168(b) through (f). Subpart H. [40 CFR 63.168(h)(2)]
- Which Months: All Year Statistical Basis: None specified
- 136 [40 CFR 63.168(i)(1)] Valves in gas/vapor service or light liquid service (difficult-to-monitor): Demonstrate that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface or it is not accessible at anytime in a safe manner. Comply with this requirement instead of the requirements in 40 CFR 63.168(b) through (d). Subpart H. [40 CFR 63.168(i)(1)]
- 137 [40 CFR 63.168(i)(3)] Valves in gas/vapor service or light liquid service (difficult-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 annually. Maintain a written plan that requires monitoring of the valves at least once per calendar year. Comply with this requirement instead of the requirements in 40 CFR 63.168(b) through (d). Subpart H. [40 CFR 63.168(i)(3)]
- Which Months: All Year Statistical Basis: None specified

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- 138 [40 CFR 63.169(a)] Pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 within 5 days (calendar) if evidence of a potential leak to the atmosphere is found by visible, audible, olfactory, or any other detection method. If a reading of 10,000 ppm for agitators, 5,000 ppm for pumps handling polymerizing monomers, 2,000 ppm for all other pumps (including pumps in food/medical service), or 500 ppm for valves, connectors, instrumentation systems, and pressure relief devices, or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.169(c). Subpart H. [40 CFR 63.169(a)]
- 139 [40 CFR 63.169(c)] Which Months: All Year Statistical Basis: None specified Pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service: Make a first attempt at repair no later than 5 calendar days after each leak is detected, and complete repairs no later than 15 calendar days after it each leak is detected, except as provided in 40 CFR 63.171. Subpart H. [40 CFR 63.169(c)]
- 140 [40 CFR 63.170] Surge control vessels and bottoms receivers: Equip with a closed-vent system that routes the organic vapors vented from the surge control vessel or bottoms receiver back to the process or to a control device that complies with the requirements of 40 CFR 63.172, except as provided in 40 CFR 63.162(b), or comply with the requirements of 40 CFR 63.19(b) or (c), if surge control vessel or bottoms receiver is not routed back to the process and meets the conditions specified in 40 CFR 63 Subpart H Table 2 or Table 3. Subpart H.
- 141 [40 CFR 63.172(f)(1)(i)] Closed-vent system (hard-piping): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once initially according to the procedures in 40 CFR 63.180(b). If an instrument reading greater than 500 ppm above background is recorded, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.172(h). Subpart H. [40 CFR 63.172(f)(1)(i)]
- 142 [40 CFR 63.172(f)(1)(ii)] Which Months: All Year Statistical Basis: None specified Closed-vent system (hard-piping): Presence of a leak monitored by visual, audible, and/or olfactory annually. If a leak is detected, initiate repair provisions in 40 CFR 63.172(h). Subpart H. [40 CFR 63.172(f)(1)(ii)]
- 143 [40 CFR 63.172(f)(2)(i)] Which Months: All Year Statistical Basis: None specified Closed-vent system (duct work): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once initially according to the procedures in 40 CFR 63.180(b). If an instrument reading greater than 500 ppm above background is recorded, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.172(h). Subpart H. [40 CFR 63.172(f)(2)(i)]
- 144 [40 CFR 63.172(f)(2)(ii)] Which Months: All Year Statistical Basis: None specified Closed-vent system (duct work): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 annually according to the procedures in 40 CFR 63.180(b). If an instrument reading greater than 500 ppm above background is recorded, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.172(h). Subpart H. [40 CFR 63.172(f)(2)(ii)]
- 145 [40 CFR 63.172(h)] Which Months: All Year Statistical Basis: None specified Make a first attempt at repair no later than 5 calendar days after each leak is detected, and complete repairs no later than 15 calendar days after it each leak is detected, except as provided in 40 CFR 63.172(i). Subpart H. [40 CFR 63.172(h)]
- 146 [40 CFR 63.172(j)(2)] Closed-vent system (bypass lines): Seal or closure mechanism monitored by visual inspection/determination monthly to ensure the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass line. Subpart H. [40 CFR 63.172(j)(2)]
- 147 [40 CFR 63.172(j)(2)] Which Months: All Year Statistical Basis: None specified Closed-vent system (bypass lines): Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. Subpart H. [40 CFR 63.172(j)(2)]

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- 148 [40 CFR 63.172(k)(1)] Closed-vent system (unsafe-to-inspect): Demonstrate that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential dangers as a consequence of complying with 40 CFR 63.172(f)(1) or (f)(2). Comply with this requirement instead of the requirements in 40 CFR 63.172(f)(1) and (f)(2). Subpart H. [40 CFR 63.172(k)(1)]
- 149 [40 CFR 63.172(k)(2)] Closed-vent system (unsafe-to-inspect): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Maintain a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times, but not more frequently than annually. Comply with this requirement instead of the requirements in 40 CFR 63.172(f)(1) and (f)(2). Subpart H. [40 CFR 63.172(k)(2)]
- Which Months: All Year Statistical Basis: None specified
- 150 [40 CFR 63.172(l)(1)] Closed-vent system (difficult-to-inspect): Demonstrate that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface. Comply with this requirement instead of the requirements in 40 CFR 63.172(f)(1) and (f)(2). Subpart H. [40 CFR 63.172(l)(1)]
- 151 [40 CFR 63.172(l)(2)] Closed-vent system (difficult-to-inspect): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once every five years. Maintain a written plan that requires inspection of the equipment at least once every five years. Comply with this requirement instead of the requirements in 40 CFR 63.172(f)(1) and (f)(2). Subpart H. [40 CFR 63.172(l)(2)]
- Which Months: All Year Statistical Basis: None specified
- Ensure that the closed-vent system or control device is operating whenever organic HAP emissions are vented to the closed-vent system or control device. Subpart H. [40 CFR 63.172(m)]
- 152 [40 CFR 63.172(m)] Agitators in gas/vapor service or light liquid service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 monthly to detect leaks, as specified in 40 CFR 63.180(b). If an instrument reading of 10,000 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.173(c). Subpart H. [40 CFR 63.173(a)]
- Which Months: All Year Statistical Basis: None specified
- Agitators in gas/vapor service or light liquid service: Presence of a leak monitored by visual inspection/determination weekly (calendar) for indications of liquids dripping from the agitator. If there are indications of liquids dripping from the agitator, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.173(c). Subpart H. [40 CFR 63.173(b)]
- Which Months: All Year Statistical Basis: None specified
- Agitators in gas/vapor service or light liquid service: Make a first attempt at repair no later than 5 calendar days after each leak is detected, and complete repairs no later than 15 calendar days after it each leak is detected, except as provided in 40 CFR 63.171. Subpart H. [40 CFR 63.173(c)]
- 153 [40 CFR 63.173(a)] Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Operate with the barrier fluid at a pressure that is at all times greater than the agitator stuffing box pressure; or equip with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of 40 CFR 63.172; or equip with a closed-loop system that purges the barrier fluid into a process stream. Comply with this requirement instead of the requirements in 40 CFR 63.173(a). Subpart H. [40 CFR 63.173(d)(1)]
- 154 [40 CFR 63.173(b)] Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Ensure that the barrier fluid is not in light liquid organic HAP service. Comply with this requirement instead of the requirements in 40 CFR 63.173(a). Subpart H. [40 CFR 63.173(d)(2)]
- 155 [40 CFR 63.173(c)] Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Equip barrier fluid system with a sensor that will detect failure of the seal system, barrier fluid system, or both. Comply with this requirement instead of the requirements in 40 CFR 63.173(a). Subpart H. [40 CFR 63.173(d)(3)]

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- 159 [40 CFR 63.173(d)(4)] Agitators in gas/vapor service or light liquid service (dual mechanical seal system): Presence of a leak monitored by visual inspection/determination weekly (calendar). Monitor for indications of liquids dripping from the agitator seal. If there are indications of liquid dripping from the agitator seal at the time of the weekly inspection, monitor the agitator as specified in 40 CFR 63.180(b) to determine the presence of organic HAP in the barrier fluid. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. If a leak is detected, initiate the repair provisions in 40 CFR 63.173(d)(6). Comply with this requirement instead of the requirements in 40 CFR 63.173(a). Subpart H. [40 CFR 63.173(d)(4)]
- Which Months: All Year Statistical Basis: None specified
- Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Determine, based on design considerations and operating experience, criteria that indicates failure of the seal system, the barrier fluid system, or both. Comply with this requirement instead of the requirements in 40 CFR 63.173(a). Subpart H. [40 CFR 63.173(d)(6)(i)]
- Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Make a first attempt at repair no later than 5 calendar days after each leak is detected, and complete repairs no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 63.171. Comply with this requirement instead of the requirements in 40 CFR 63.173(a). Subpart H. [40 CFR 63.173(d)(6)]
- Agitators in gas/vapor service or light liquid service (dual mechanical seal system - sensor): Equipment/operational data monitored by visual inspection/determination daily, or equip with an audible alarm unless the agitator is located within the boundary of an unmanned plant site. If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criteria established in 40 CFR 63.173(d)(6), a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.173(d)(6). Comply with this requirement instead of the requirements in 40 CFR 63.173(a). Subpart H. [40 CFR 63.173(d)]
- Which Months: All Year Statistical Basis: None specified
- Agitators in gas/vapor service or light liquid service (unmanned plant site): Presence of a leak monitored by visual inspection/determination at the regulation's specified frequency. Monitor each agitator as often as practicable and at least monthly. Comply with this requirement instead of the weekly visual inspection requirement of 40 CFR 63.173(b)(1) and (d)(4), and the daily requirements of 40 CFR 63.173(d)(5). Subpart H. [40 CFR 63.173(g)]
- Which Months: All Year Statistical Basis: None specified
- Agitators in gas/vapor service or light liquid service (difficult-to-monitor): Demonstrate that the agitator cannot be monitored without elevating the monitoring personnel more than two meters above a support surface or it is not accessible at anytime in a safe manner. Comply with this requirement instead of the requirements in 40 CFR 63.173(a) through (d). Subpart H. [40 CFR 63.173(h)(1)]
- Agitators in gas/vapor service or light liquid service (difficult-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 annually. Maintain a written plan that requires monitoring of the agitator at least once per calendar year. Comply with this requirement instead of the requirements in 40 CFR 63.173(a) through (d). Subpart H. [40 CFR 63.173(h)(3)]
- Which Months: All Year Statistical Basis: None specified
- Agitators in gas/vapor service or light liquid service (unsafe-to-monitor): Demonstrate that the agitator is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 63.173(a) through (d). Comply with this requirement instead of the requirements in 40 CFR 63.173(a) through (d). Subpart H. [40 CFR 63.173(j)(1)]
- 160 [40 CFR 63.173(d)(6)(i)]
- 161 [40 CFR 63.173(d)(6)]
- 162 [40 CFR 63.173(d)]
- 163 [40 CFR 63.173(g)]
- 164 [40 CFR 63.173(h)(1)]
- 165 [40 CFR 63.173(h)(3)]
- 166 [40 CFR 63.173(j)(1)]

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- 167 [40 CFR 63.173(j)(2)] Agitators in gas/vapor service or light liquid service (unsafe-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Maintain a written plan that requires monitoring of the agitator as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable. Comply with this requirement instead of the requirements in 40 CFR 63.173(a) through (d). Subpart H. [40 CFR 63.173(j)(2)]
- 168 [40 CFR 63.174(b)(1)] Which Months: All Year Statistical Basis: None specified Connectors in gas/vapor service or light liquid service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once within 12 months after the compliance date, except as provided in 40 CFR 63.174(f) through (h). If an instrument reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.174(d). Subpart H. [40 CFR 63.174(b)(1)]
- 169 [40 CFR 63.174(b)(2)] Which Months: All Year Statistical Basis: None specified Connectors in gas/vapor service or light liquid service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once within the first 12 months after initial startup or by no later than 12 months after the date of promulgation of a specific subpart that references 40 CFR 63. Subpart H, whichever is later, except as specified in 40 CFR 63.174(f) through (h). If an instrument reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.174(d). Subpart H. [40 CFR 63.174(b)(2)]
- 170 [40 CFR 63.174(b)(3)(i)] Which Months: All Year Statistical Basis: None specified Connectors in gas/vapor service or light liquid service (0.5% or greater leaking): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 annually. Subpart H. [40 CFR 63.174(b)(3)(i)]
- 171 [40 CFR 63.174(b)(3)(ii)] Which Months: All Year Statistical Basis: None specified Connectors in gas/vapor service or light liquid service (less than 0.5% leaking): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once every two years. Subpart H. [40 CFR 63.174(b)(3)(ii)]
- 172 [40 CFR 63.174(c)(1)(i)] Which Months: All Year Statistical Basis: None specified Connectors in gas/vapor service or light liquid service (opened or otherwise had the seal broken): Presence of a leak monitored by 40 CFR 60, Appendix A, Method 21 within three months after being returned to organic HAP service or when it is reconnected. If monitoring detects a leak, repair according to the provisions of 40 CFR 63.174(d), as specified, except as provided in 40 CFR 63.174(c)(1)(ii). Subpart H. [40 CFR 63.174(c)(1)(i)]
- 173 [40 CFR 63.174(c)(2)(i)] Which Months: All Year Statistical Basis: None specified Connectors in gas/vapor service or light liquid service (2 inches or less in nominal diameter): Comply with the requirements of 40 CFR 63.169. Subpart H. [40 CFR 63.174(c)(2)(i)]
- 174 [40 CFR 63.174(c)(2)(ii)] Which Months: All Year Statistical Basis: None specified Connectors in gas/vapor service or light liquid service (2 inches or less in nominal diameter): Organic HAP monitored by technically sound method within three months after being returned to organic HAP service after having been opened or otherwise had the seal broken. If monitoring detects a leak, implement repair provisions in 40 CFR 63.174(d). Subpart H. [40 CFR 63.174(c)(2)(ii)]
- 175 [40 CFR 63.174(d)] Which Months: All Year Statistical Basis: None specified Connectors in gas/vapor service or light liquid service: Make a first attempt at repair no later than 5 calendar days after each leak is detected, and complete repairs no later than 15 calendar days after it each leak is detected, except as provided in 40 CFR 63.171 and 63.174(g). Subpart H. [40 CFR 63.174(d)]
- 176 [40 CFR 63.174(f)(1)] Which Months: All Year Statistical Basis: None specified Connectors in gas/vapor service or light liquid service (unsafe-to-monitor): Demonstrate that the connector is unsafe to monitor because personnel would be exposed to an immediate danger as a result of complying with 40 CFR 63.174(a) through (c). Comply with this requirement instead of the requirements in 40 CFR 63.174(a). Subpart H. [40 CFR 63.174(f)(1)]

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177 [40 CFR 63.174(f)(2)]

Connectors in gas/vapor service or light liquid service (unsafe-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Maintain a written plan that requires monitoring of connectors as frequently as practicable during safe to monitor times, but not more frequently than the periodic schedule otherwise applicable. Comply with this requirement instead of the requirements in 40 CFR 63.174(a). Subpart H. [40 CFR 63.174(f)(2)]

Which Months: All Year Statistical Basis: None specified

Connectors in gas/vapor service or light liquid service (unsafe-to-repair): Demonstrate that repair personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 63.174(d). Comply with this requirement instead of the requirements in 40 CFR 63.174(a), (d), and (e). Subpart H. [40 CFR 63.174(g)]

Connectors in gas/vapor service or light liquid service (inaccessible, ceramic, or ceramic-lined): Make a first attempt at repair within 5 days after leak is detected by visual, audible, olfactory or other means, and complete repairs no later than 15 calendar days after leak is detected, except as provided in 40 CFR 63.171 and 63.174(g). Comply with this requirement instead of the monitoring requirements of 40 CFR 63.174(a) and (c) and from the recordkeeping and reporting requirements of 40 CFR 63.181 and 63.182. Subpart H. [40 CFR 63.174(h)(2)]

Connectors in gas/vapor service or light liquid service: Calculate percent leaking connectors as specified in 40 CFR 63.174(i)(1) and (i)(2). Subpart H. [40 CFR 63.174(i)]

Comply with the test methods and procedures requirements provided in 40 CFR 63.180. Subpart H.

Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records as specified in 40 CFR 63.181(a) through (k). Subpart H.

Submit Initial Notification: Due within 120 days after the date of promulgation of the subpart that references 40 CFR 63 Subpart H. Include the information specified in 40 CFR 63.182(b)(1). Subpart H. [40 CFR 63.182(b)]

Submit Initial Notification: Due within 90 days after the date of promulgation of the subpart that references 40 CFR 63 Subpart H. Include the information specified in 40 CFR 63.182(b)(1). Subpart H. [40 CFR 63.182(b)]

Submit application. Due as soon as practicable before the construction or reconstruction is planned to commence (but it need not be sooner than 90 days after the date of promulgation of the subpart that references 40 CFR 63 Subpart H). Submit application for approval of construction or reconstruction required by 40 CFR 63.5(d) in lieu of the Initial Notification. Subpart H. [40 CFR 63.182(b)]

Submit Notification of Compliance Status: Due within 90 days of the compliance dates specified in the 40 CFR 63 subpart that references 40 CFR 63 Subpart H. Include the information specified in 40 CFR 63.182(c)(1) through (c)(3). Subpart H. [40 CFR 63.182(c)]

Submit Periodic Reports: Due semiannually starting 6 months after the Notification of Compliance Status, as required in 40 CFR 63.182(c). Include the information specified in 40 CFR 63.182(d)(2) through (d)(4). Subpart H. [40 CFR 63.182(d)]

Equip all rotary pumps and compressors handling volatile organic compounds having a true vapor pressure of 1.5 psia or greater at handling conditions with mechanical seals or other equivalent equipment.

Shall control Class I and Class II toxic air pollutants (TAP) to a degree that constitutes Maximum Achievable Control Technology (MACT). Shall comply with all applicable provisions of 40 CFR 63 Subpart H - Determined as MACT.

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190 [40 CFR 60.]

All affected facilities shall comply with all applicable provisions in 40 CFR 60 Subpart A.

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- 191 [40 CFR 63.]
192 [LAC 33.III.2113.A]
193 [LAC 33.III.219]
194 [LAC 33.III.501.C.1]
195 [LAC 33.III.501.C.6]
196 [LAC 33.III.501.C.6]
197 [LAC 33.III.507.E.4]
198 [LAC 33.III.509]
199 [LAC 33.III.5105.A.1]
200 [LAC 33.III.5105.A.2]
201 [LAC 33.III.5105.A.3]
202 [LAC 33.III.5105.A.4]
203 [LAC 33.III.5107.A.2]
- All affected facilities shall comply with all applicable provisions in 40 CFR 63 Subpart A as delineated in Table 12 of 40 CFR 63 Subpart FFFF. Maintain best practical housekeeping and maintenance practices at the highest possible standards to reduce the quantity of organic compounds emissions. Good housekeeping shall include, but not be limited to, the practices listed in LAC 33.III.2113.A.1-5. Failure to pay the prescribed application fee or annual fee as provided herein, within 90 days after the due date, will constitute a violation of these regulations and shall subject the person to applicable enforcement actions under the Louisiana Environmental Quality Act including, but not limited to, revocation or suspension of the applicable permit, license, registration, or variance.
- Submit permit application: Due prior to construction, reconstruction or modification unless otherwise provided in LAC 33.III.Chapter 5. Submit a timely and complete permit application to the Office of Environmental Services, Air Permits Division, as required in accordance with the procedures in LAC 33.III.Chapter 5.
- Maintain best practical housekeeping and maintenance practices at the highest possible standards to control emissions of highly reactive volatile organic compounds (HRVOC), which include 1,3-Butadiene, Butene, cis-2-Butene, Ethylene, Propylene, Toluene, Xylene, m/p-Xylene, o-Xylene. (State Only).
- Maintain, to the extent practicable, a leak-free facility taking such steps as are necessary and reasonable to prevent leaks and to expeditiously repair leaks that occur. Update the written plan presently required by LAC 33.III.2113.A.4 within 30 days of receipt of this permit to incorporate these general duty obligations into the housekeeping procedures. The plan shall then be considered a means of emission control subject to the required use and maintenance provisions of LAC 33.III.905. Failure to develop, use, and diligently maintain the plan shall be a violation of this permit. (State Only).
- Any permit application to renew an existing permit shall be submitted at least six months prior to the date of permit expiration, or at such earlier time as may be required by the existing permit or approved by the permitting authority. In no event shall the application for permit renewal be submitted more than 18 months before the date of permit expiration.
- Comply with the requirements of PSD-LA-11(M1). This permit includes provisions of the Prevention of Significant Deterioration (PSD) review from Permit PSD-LA-611(M1).
- Do not construct or modify any stationary source subject to any standard set forth in LAC 33.III.Chapter 51.Subchapter A without first obtaining written authorization from DEQ in accordance with LAC 33.III.Chapter 51.Subchapter A, after the effective date of the standard.
- Do not cause a violation of any ambient air standard listed in LAC 33.III.Table 51.2, unless operating in accordance with LAC 33.III.5109.
- Do not build, erect, install, or use any article, machine, equipment, process, or method, the use of which conceals an emission that would otherwise constitute a violation of an applicable standard.
- Do not fail to keep records, notify, report or revise reports as required under LAC 33.III.Chapter 51.Subchapter A.
- Submit Annual Emissions Report (TEDI): Due annually, by the 1st of July, to the Office of Environmental Assessment, Air Quality Assessment Division, in a format specified by DEQ. Identify the quantity of emissions in the previous calendar year for any toxic air pollutant listed in Table 51.1 or Table 51.3.

SPECIFIC REQUIREMENTS**AI ID: 1136 - Shell Chemical Co - Geismar Plant****Activity Number: PER2002002****Permit Number: 2489-V1****Air - Title V Regular Permit Renewal****UNF0001 PDO-1 Unit**

204 [LAC 33:III.5107.A.3]

Include a certification statement with initial and subsequent annual emission reports and revisions to any emission report to attest that the information contained in the emission report is true, accurate, and complete, and signed by a responsible official, as defined in LAC 33:III.502.

Include the full name of the responsible official, title, signature, date of signature and phone number of the responsible official. The certification statement shall read: "I certify, under penalty of perjury, that the emissions data provided is accurate to the best of my knowledge, information, and belief, and I understand that submitting false or misleading information will expose me to prosecution under state regulations."

Any application form, report, or compliance certification submitted under this Chapter shall contain certification by a responsible official of truth, accuracy, and completeness. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information contained in the application are true, accurate, and complete.

Submit supplementary facts or corrected information. Due promptly upon becoming aware of failure to submit or incorrect submittal regarding permit applications. In addition, provide information as necessary to address any requirements that become applicable to the source after the date of filing a complete application but prior to release of a proposed permit.

Submit applications for permits in accordance with forms and guidance provided by the DEQ. At a minimum, each permit application submitted under LAC 33:III. Chapter 5 shall contain the information specified in LAC 33:III.517.D, subparagraphs 1-18.

In addition to those elements listed under LAC 33:III.517.D, include in each application pertaining to a Part 70 source the information specified in LAC 33:III.517.E, Subparagraphs 1-8.

Activate the preplanned abatement strategy listed in LAC 33:III.5611.Table 5 when the administrative authority declares an Air Pollution Alert.

Activate the preplanned strategy listed in LAC 33:III.5611.Table 6 when the administrative authority declares an Air Pollution Warning.

Activate the preplanned abatement strategy listed in LAC 33:III.5611.Table 7 when the administrative authority declares an Air Pollution Emergency.

Prepare standby plans for the reduction of emissions during periods of Air Pollution Alert, Air Pollution Warning and Air Pollution Emergency. Design standby plans to reduce or eliminate emissions in accordance with the objectives as set forth in LAC 33:III.5611.Tables 5, 6, and 7.

Comply with the provisions in 40 CFR 68, except as specified in LAC 33:III.5901.

Identify hazards that may result from accidental releases of the substances listed in 40 CFR 68.130, Table 59.0 of LAC 33:III.5907, or Table 59.1 of LAC 33:III.5913 using appropriate hazard assessment techniques, design and maintain a safe facility, and minimize the off-site consequences of accidental releases of such substances that do occur.

Submit registration: Due January 31, 1998, or within 60 days after the source becomes subject to LAC 33:III. Chapter 59, whichever is later. Include the information listed in LAC 33:III.5911.B, and submit to the Department of Environmental Quality, Office of Environmental Compliance, Emergency and Radiological Services Division.

Submit amended registration: Due to the Department of Environmental Quality, Office of Environmental Compliance, Emergency and Radiological Services Division, within 60 days after the information in the submitted registration is no longer accurate.

Submit Emission Inventory (EI)/Annual Emissions Statement: Due annually, by the 31st of March for the period January 1 to December 31 of the previous year unless otherwise directed. Submit emission inventory data in the format specified by the Office of Environmental Assessment, Air Quality Assessment Division. Include all data applicable to the emissions source(s), as specified in LAC 33:III.919.A-D.

UNF0001 PDO-1 Unit

205 [LAC 33:III.517.B.1]

206 [LAC 33:III.517.C]

207 [LAC 33:III.517.D]

208 [LAC 33:III.517.E]

209 [LAC 33:III.5609.A.1.b]

210 [LAC 33:III.5609.A.2.b]

211 [LAC 33:III.5609.A.3.b]

212 [LAC 33:III.5609.A]

213 [LAC 33:III.5901.A]

214 [LAC 33:III.5907]

215 [LAC 33:III.5911.A]

216 [LAC 33:III.5911.C]

217 [LAC 33:III.919.D]